128 126 tion, made after careful discussion of the archaic words with several informants. At the left of each such item appears a serial number which will indentify it in a future volume of texts.

● 177 Some ceremonies, like the rainmaking, are still being widely held. Others, like girl's puberty, have lapsed completely. Notes at the chapter ends give the present status of each but, for consistency, the descriptions are all in the past. This echoes the wording of old ceremonialists who usually preferred to describe the rituals as they flourished at the turn of the century, before reservation days.

000 A few of the songs and speeches have appeared in a previous volume, *Singing for Power,* University of California Press, Berkeley, California, 1938. They are here reproduced by the kind permission of the University of California Press.

[122] Funds for this study were generously supplied by the Humanities Council of Columbia University. The writer is deeply indebted to Drs. Franz Boas and Ruth Benedict, under whose immediate supervision the work was carried out. The work had the able co-operation of practically the whole teaching staff of the Sells reservation, with much practical help from the superintendent, Mr. T. B. Hall. The true authors of the book, however, are the Papago ceremonialists who painstakingly dictated their rituals in order to make them available for future generations.

RUTH M. UNDERHILL

United States Indian Office
Washington, D.C.
January, 1946

1

BACKGROUND

221 241 THE Papago Indians, in the deserts of southern Arizona, were an agricultural people, thoroughly adapted to farming and food gathering in an arid country, yet they were obliged to be semi-nomadic. There were no rivers in their country, and they had to "follow the water" in order to keep alive. They spent their winters camping near small mountain springs, in shelters which were often roofless, guarding their few possessions from the wind, but exposed to the southern sunlight. When June brought a ripening of the giant cactus, nourished on the water in its fleshy trunk, they flocked to the hills to collect its fruit. Finally, with the first July showers, they migrated to the open plain, where their domed brush huts were clustered in permanent villages, uninhabited except in the rainy season. Here they could stay as long as the summer cloudbursts filled their primitive reservoirs and softened the rocklike adobe of their fields. When the corn, beans, and squash were harvested and the reservoirs were dry, they returned to the mountains.

177 648 This was their life practically up to the present generation. They were first visited by Kino, the Spanish missionary, in 1691, and after that they had sporadic contacts with Spanish whites during two centuries and a half. Yet their desert was too uninviting to be made a goal of empire, and they were never "reduced," like their Uto-Aztecan kinsmen of Sonora. Even when half their country became American, by the Gadsden Purchase of 1854, they remained almost unvisited. White pioneers streamed along the Gila north of them, bringing profound changes to the Gila Pima, their blood brothers. Still the "Desert People," as the Papago call themselves, remained aloof and almost unknown. They had not even a large reservation until 1917. No wonder they have retained almost to

177
648 the present day many ceremonies that have been discarded by the Gila Pima and only vaguely hinted at by the vanishing Lower Pima or the Catholicized Tarahumara.

184 Rather we should say that *some* of them have retained *some* ceremonies, for the Papago are by no means a homogeneous group. Geographically they are divided into four main sections, each with a different dialect and, perhaps, having different biological elements in its population. These groups have been described in my previous volume,[1] but for convenience in following the ceremonies, they are listed briefly here.

101
619
184 Northern Papago (nicknamed *totokuanyi,* loose G string), sometimes called "Archie people," from the name of their head village. Residents of this large and important division speak of themselves as the true Desert People, the first settlers of the country. They are in intimate communication with the Pima, and this same communication was going on even in Kino's day. Their language is closer to Pima than it is to southern Papago and in fact forms one dialect group with Pima and *kuhatk*. Because of the rapid acculturation of the last two, it is hard to tell whether ceremonial customs were shared also.

Quajote (Papago, *kuhatk,* translated "dried and burnt," or "bowl," alluding to the topography). This division is in close contact with Pima country, and for practical purposes is to be considered part of it. The dialects are identical, and the residents, though claiming the name "desert people," have intermarried largely with the Pima and, like them, have adopted white ways. They figure very little in this study.

Western Papago (nicknamed *huhura,* or *huhula,* orphans). These Indians inhabit the inhospitable desert country, the nickname of its residents indicating that they had no good water and could not build permanent villages. The inhabitants are spoken of by other divisions as sorcerers, a sure sign of strangeness, and their dialect is recognizably different. From an ethnological point of view, the north-and-south line dividing these people from the two just mentioned, is more important than the political boundary between Papago and Pima.

Southern Papago (nicknamed *kokororoti,* or *kokololoti,* from Tecolote, one of their villages). If *kuhatk* belongs practically with the Pima, this division aligns with Mexico. Its people camp and run cattle on

---

[1] Underhill, 1939, pp. 59–69.

both sides of the border, or they did until a recent boundary fence 101
was erected. Their dialect shows many traces of Spanish, both in pro- 619
nunciation and vocabulary. They are nominally Christians, and their 184
government is of the style standardized by Spain for Mexican villages.
They have abandoned most of the old ceremonies and customs and
have been so harassed during the Mexican wars that their village,
clan, and moiety affiliations have been largely broken up. As compen-
sation, they shared earlier than the other groups in Spanish civiliza-
tion. They were the first to use wheat, horses, and cattle, and they
now include some incipient capitalists.

In a general study, it might be possible to include the Gila Pima,
called by the Papago the "River People" as another division. We
shall speak of them and the Papago together as Pimans, for the
separation of the two groups, with their distinct names, is a recent [177]
development, due largely to reservation geography. However Pima
ceremonies, today, are almost nonexistent. The Pima have been
subject to white influence for almost one hundred years and, even
when Russell visited them in 1901–2, he found only fragments
of ritual practice. Nevertheless, such songs and speeches as he re-
corded, reveal striking likenesses to the material presented here.

True, there were some ceremonies which the Pima never had, 184
such as the salt pilgrimage and the rituals for local shrines. Yet 177
most others have left their traces. Sometimes a single song, roughly
classed as "medicine" or "festal," has the very words of a Papago
song that forms an integral part of some long ritual. Elements of a
curing practice which Russell could not explain, appear to be frag-
ments of the prayerstick festival that had been retained for curing,
though abandoned as a public performance. These similarities have
been noted in their suitable order. They give the impression that
Pima ceremonial life strongly resembled that of the northern Pa-
pago. It may not have differed from that of the other divisions any
more than they differed from each other.

Papago and Pima both are divided into moieties, known usually 614
as Red Ants and White Ants among the Pima, Buzzard and Coyote 616
among the Papago. These sometimes have minor functions in cere-
mony, such as painting the dancers but they do not conduct cere-
monies nor possess rituals. The same is true of the four sibs or clans,

35. House of the shaman, house of the shaman! 773
House of the shaman, house of the shaman! 539x
You did not believe it was true.
But I came and it was true.
Hiro a'dro!

Here, overhead, the squashes are raining.
Right here, on the fields, the squashes are raining.
Hiro a'dro!(20)

Two other songs with the *hiro a'dro* refrain may belong to this story, though our informants had learned them separately and did not know the context.

Corn speaks.

24. The little striped woodpecker
Descends right down into my heart.

Man speaks.

This my bow
Twangs in the cornfield.
Hiro a'dro!(4)

26. *Hiro a'dro!*
The squash we hold in our arms.
The squash we hold in our arms.
Do we not all hold it in our arms?
Hiro a'dro!
Do we not all hold it in our arms?
Hiro a'dro!(4)

For squash there is a different story, associating it with Navitcu, 773 the ceremonial clown. Navitcu, as we have mentioned, is obviously an importation from the Pueblos, with his mask, his tuft [177] ● of feathers, his *kachina*-like costume, and the seeds which he carries "in his heart." However, the character has been worked into Papago mythology.

After the flood, when Elder Brother and Earthmaker were looking 773 for the center of the earth, they met Navitcu and the turtle. "You 539x have no right to be here," said Elder Brother, "I have not created you." So he sent them south. Every night when they camped, the turtle

271 773 x537 mother sent them to pick up any drops of blood which might be left, and they found a few, which ultimately turned into bird eggs and hatched out two macaws. The people were angry at the boys, so the grandmother told them to flee, leaving her behind. They were to return in four days, and whatever they found in her place would be her gift to them. They returned and found a tobacco plant. For a long time they did not know what to do with it, but finally Elder Brother visited them, told them to smoke it, and instituted the passing of the ceremonial cigarette.

[435] Many songs given by the old woman to her grandsons accompanied the growth of tobacco. But the Papago at present buy Mexican tobacco, and only one planting song was remembered.

TOBACCO PLANTING SONG

39. Am I not the tobacco shaman?
Here I come forth and grow tall.
Am not I the tobacco shaman?
The blue humming bird finds my flowers.
Above them softly he is humming.
Hiro a'dro.(2)

● [177] The communal meeting with fruit effigies is no longer held. But Santa Rosa and its companion villages continue their ceremonies at the shrine, and many individuals use planting songs and invocations.[8]

---

[8] Public ceremonies for growth are held at the desert shrine which serves Archie, Akchin, Santa Rosa, and Anegam. Other ceremonies are held at Kaka. There may be more unknown to the writer.

with any relatives who had been less fortunate. Most of it was taken 796x
home and prepared for a feast to which all the old and indigent 224
were invited, as well as the visiting kin. The speech emphasizes [888]
also the gifts of cooked food which were sent to other houses.

THE DEER DRIVE AND THE CLEANSING CEREMONY

As the ceremonial rabbit drive opened the summer hunting season, so a deer drive opened the winter season. At least, this was so among the northern Papago, whose deer hunting began in November. The southern Papago held their deer dance and hunt in August. In both cases the procedure was the same. A blacktailed deer was ritually killed and cooked, with corn, beans, and squash from the harvest. Songs, dancing, and orations united and sanctified all this food in a general cleansing ceremony.

The rites were instituted by I'itoi, say the ceremonialists, be-
cause after he had created the deer he found that the people be- [773]
came sick from eating too much of it. So he showed them a dance by which they might "step down the sickness." Though this is popularly known as "deer dance," it has nothing in common with the dances for multiplying game, so common among the Pueblos. Its Papago name is *má'makah,* a word no informant could translate. One member of the *maam* sib thought that it might refer to
that group, to which he said *I'itoi* had specifically given it. Certain
it is that in this ceremony sib distinctions play an important part. [614]
Special roles are assigned to members of *maam* and *dapap,* but since these are the oldest and most important members of Buzzard and Coyote, respectively, it may be that the distinction is actually one of moiety.[11]

A cleansing ceremony was given in each of the important cere- 796x
monial centers, Archie, Pisinimo, Kaka, and Quitovaca (Sonora). 224
The only one still in force is that held at Quitovaca, though the 184
Pisinimo people, who are Catholics, substitute for it the killing 177
of a beef in front of the church on Holy Cross day and the distribution of cakes instead of venison. Accounts of the dance were obtained from Kaka, Santa Rosa, Pisinimo, and Quitovaca and are different enough to be treated separately.

---

[11] For description of sibs and moieties see Underhill, 1939, pp. 30–34.

an originally elaborate feast, or whether new elements like the 184
Santa Rosa speech were actually introduced, must await further in- 796^
vestigation. 224

The cleansing ceremony has been given up in all villages known 177
to the writer. Elements of it may persist in some parts of the reservation, however. At Pisinimo the ceremony seems to have been amalgamated with the Christian celebration of Holy Cross Day (see Chapter XIV).

536 village marched singing into the camp of their opponents. They went straight to the dance ground, which they circled once counterclockwise, shouting. Then they took their places on the side of the plaza, which corresponded to the direction from which they had come, while their hosts sat at the opposite side.

Before the actual skipping dance there was a preliminary performance called *tá'iwuñi* (jumping out), a ceremonial of challenge. [302] The performer was a man called *kúata'k* (ant). The right half of his face was painted red, and the left black, while his arms and legs were red with white spots representing seeds. He wore [292] a short kilt and carried a basket drum. In each hand he also carried an eagle wing-feather.

This man rushed in from the direction from which the challengers had come and hurled down his basket drum. Four singers appeared. One thumped the drum violently; and the other sang, while the "ant" stood in front of them, waving his feathers. After the song, the performers leaped up and rushed out, shouting. Four men, waiting with a blanket, received the "ant" into it, so that he seemed to disappear. Thus, he was escorted to the next point on the compass, in a counterclockwise direction, when he and the singers rushed in again, and the performance was repeated. This they did for all four points of the compass.

A more recent version of this prelude calls the performer merely ● [177] "he who jumps out" and states that his face and body are painted white. He dances, accompanied by singers with one basket drum and four rattles. The song is sung four times at each point of the compass: twice tapping the basket, with rattles horizontal; twice scraping, with rattles vertical.

JUMPING OUT SONG

x[539] 3. Longing to see the world,
Far, far yonder did I run.
Over there at the fields of the Hollow Place,
Far over there, did I rush out.(26)

The song was sung at the Hollow Place (San Xavier), but any other name might be inserted.

After this preliminary ceremony, the game leaders of the two stepping carefully in the tracks of the one ahead of him. As they 796x entered the enclosure again, all three corn-meal sprinklers scattered corn meal.

In old days singing and dancing would now have begun and [177] would have lasted all night. Instead, the men took off their costumes, and all but the corn-meal sprinklers went away. The corn-meal sprinklers guarded the enclosures all night and were expected to fast as did the guardians of the bundle. These guardians told the writer next day that they had actually fasted, but they did not remain with the basket. They wandered about informally, though there was a group of men smoking within sight of Sacramenta all night.

At sunrise the scraping-stick musicians struck up a dawn song.

18. The sun is rising! [639]x
The sun is rising!
Over us the white houses [clouds] stand.(20)

A procession identical with the one of the previous night emerged from each enclosure, except that now each procession had a banner, carried by a volunteer and representing, on the north, Sun; on the south, Moon. The banners were white cotton [formerly deerskin], about two feet square, stretched between two sticks which the bearer carried above his head. Sun was represented by a red disk, Moon by a blue square. They crossed the dance ground as before and returned.

After this the procedure was similar to that at Archie. The scraping-stick musicians sang songs in their shelter, while a series of processions came from the enclosures, singing entirely different songs. Only one song of the scraping-stick musicians was recorded: a thanksgiving for first fruits.

19. He [Elder Brother] will give us a fine big child of the corn [ear] [639]x
We will eat it just as we like.
He will give us a fine big child of the squash.
We will eat it just as we like.(20)

Meanwhile, from the two enclosures processions emerged alternately and continued to do so all day. The singers were volun-

During the ceremony cactus liquor was being fermented in the 796x
council house, since at Quitovaca the rainmaking ceremony has 273
coalesced with the prayer-stick festival. The process was under the [[84]]
charge of an appointed liquormaker, but there was much less ceremony than in the north. A tuft of eagle down was placed over the door of the council house and another on the ground outside. The latter was attached to a stick two feet high painted with a red spiral. No explanation of the decoration could be given. "It was from the beginning."

The scraping-stick musicians acted as tasters. Samples were brought to them in their shelter, and they consumed a jugful at each test, sharing it with the woman guardian of the basket. The writer, invited to sit with them, was offered her share and had a chance to hear them joke each other about the fast they were enduring.

"Well, liquor's good enough, but now bring some corn-meal mush." "Where's the coffee?" "My legs are stiff, I haven't been out for three hours."

The men did get up occasionally and walk about, but the woman guardian sat absolutely still for the whole twenty-four hours.

This happened to be a specially fortunate festival for the liquor fermented before the day was half over. "Because of that," clouds gathered early, and by mid-afternoon there was such a torrential downpour that the performance had to be left unfinished. When it broke up, the woman guardian took the basket on her head and, escorted as before, carried it back to the council house. After the drinking it was returned to its cave in the hills. From the council house a man not in costume went around the village inviting the men. "Come friend. Get well drunk." Drinking lasted until dawn, when the liquor was exhausted.

Both the prayer-stick festivals are still being given. For a time, 796x
the winter festival was dropped but it was revived in 1932 and 177
the Archie people plan to continue it permanently. The summer festival has been held continuously but it is much abbreviated. It has coalesced with the cleansing ceremony and the rainmaking to form the one yearly performance at Quitovaca.

[p. 162 is blank]

317 tarily, almost to starvation. They run until men have been known 484 to die from the effects. The south, which is the direction of the gulf, is often designated in their poetry, not by a color, but as "the painful direction."

The hardships, which have been thus raised from an accident into an institution, constitute one of the principal opportunities for gaining power. The journey is hedged about with ceremonial restrictions, from the time it is first proposed till long after the return. The salt pilgrimage is, in fact, very like a war party, and some of its rules are even more stringent. It is as though the Papago, who had so little to do with war, had transferred some of the magical elements connected with it to this safer and more regular form of ordeal.

The returned pilgrims were purified, like the enemy slayer and the eagle killer, and they achieved the same title: "ripe man." Their endeavor, like that of the other power seekers, resulted ultimately in rain. Pilgrims are thought to bring back with them the moist wind from the ocean, and the songs used for their purification are the same as those for the growth of crops. During the ritual the salt is ceremonially spoken of as corn. Yet it is not, in itself, sacred, any more than are the crops. After a little of it has been purified, just as specimen crops are purified at the cleansing [435] ceremony, salt may be eaten, given away, or even traded, without further ritual. The Pima, who do not make the salt pilgrimage, used to get all their salt from the Papago by trade.

PREPARATION

[184] [197] All the Papago villages, in the old days, made the salt pilgrimage. Now, some have dropped it, and others may have dropped most of the ritual. Only Santa Rosa and Anegam have a full set of songs and speeches, and the others admit that "they know how to get salt. The rest of us just do what we can."

Each main village had for the salt expedition a recognized leader who was known as *siiwanyi,* the old name for rain magician. His functions were both practical and priestly, for not only must he know the route and the water holes but also must make

260

x881
x539

GIRLS' PUBERTY DANCE

Beside the singing place
I lie down.
[Darkness] reverberates.

28. I know not what I do;
Here I am lying.
Now I leap up.
Circling, I sing.
I go about.
I leap up.
Circling, I sing.

881 343 184 179 The girls' puberty ceremony is no longer performed. Only the oldest people remembered its details. Segregation huts, however, are still used in some remote districts.

753 times had a relation to traits in the animal. Thus, most coughs came
825 from the deer, "because he snorts and snuffles." Head lice were from the eagle, usually infested with them. Headache and dizziness were from the horse, "because you feel that way when he throws you." Certain animals were particularly common as avengers, the larger ones appearing oftenest. The writer, when staying in a Papago house, was once caught by her hostess swatting flies. She attempted to excuse the slaughter by explaining: "You know, we white people are peculiar. We think flies bring disease."

"Oh," replied the Papago, "we think disease comes from animals, too, but we wouldn't pick on anything so small as a fly. We'd think of big ones, like the badger or the deer."

787 The animals came unsought to their "meeters," giving, perhaps,
759 one song which could be used to evoke their good will.[a] Both men and women received these songs, and often those not otherwise given to dreaming managed this one contact with the supernatural. Said one woman:

> I was out in the desert one day and saw a horned toad looking at me. I knew he meant to say something, and I thought about it. That night, I waked up, and a song began to come to me. But I couldn't get it all. Next morning, I lay still and thought, and then I began to sing it. It was about the horned toad.
>
> For a long time nobody knew anything about it except that my family heard me singing. At last my mother was very sick. They had other singers and nothing had happened. My family asked me to try, but I was ashamed. At last I did, and she got well. Then other people asked me.(26)

752 One modern singer cures injuries resulting from falling off a
776 horse or being kicked by horses and cattle. Since these animals are
● 177 importations from the whites, his visitant is another white importation, the devil.

---

[114] [a] Russell says nothing about singers of animal songs among the Pima, yet they must have existed. He gives a list of symptoms and procedures (pp. 262–65) very similar to the ones quoted here. Some of his medicine songs (pp. 312–14, 317, 319, 320–21) are obviously those given by animals. His statement is that these are a remedy for animal-sent disease, and, by inference, the singer is the shaman. However, in the case of the dog disease (p. 263) "someone who knows the dog song is called in to sing." Very likely, there were singers for the other songs also.

collected and kept on hand such simple remedies as greasewood 759
for colds and a leaf called "buzzard's mother" for infant diarrhea.
Women exchanged lore about these old wives' remedies among
themselves and rarely called in an outside practitioner until dis-
ease grew serious. Some rarer and much-desired herbs had to be
brought from Mexico or from Mt. Baboquiviri, where running
water produced an exotic tropical vegetation. There were men
and even women who made a living out of picking and drying [278]
such herbs and then peddling them around the country. Such
"doctors" even prescribed on occasion, as a modern pharmacist
might do if the malady were a simple one. Their trade, however,
was in the same class as food peddling and involved no vision.
When serious illness was in question, the patient called a sha-
man.[18]

This legitimate practitioner, however, might supplement his 759
blowing and sucking by an herbal remedy, "if he saw it in his 177
dream."(4) Today this practice is gaining more and more hold. 278
A shaman of the writer's acquaintance frequently "saw" herbal
laxatives—even quinine and aspirin—obtained from the govern-
ment hospital. Though the directions which he followed might
have been read to him from the bottle, he explained that he later
dreamed them all over again, thus making them valid for *his*
patients.

Curing singers of all sorts still do a thriving business on the 759
reservation, as do herb doctors. Among them, there are govern- 755
ment school products and church members. They seem to be em-
ployed by all classes of Papago, even when the government doctor
and hospital are also used.

---

[18] For Pima herb doctors see Russell, p. 257.

[p. 302 is blank]

14

MODERN CEREMONIAL LIFE

x796 533 THE Papago flair for song composition is still fully alive. In 1931 and 1933 there were given at Santa Rosa two performances with effigies and dance movements supervised by the local keeper of the smoke. It was a variant of the old custom of dreaming a series of songs with appropriate paraphernalia for the skipping dance. But in this case the effigies were large and elaborate like those for the prayer-stick festival and, instead of being carried in procession, were so used as to amount to a stage setting.

CEREMONY FOR POWER

x796 The purpose of the ceremony was, not to provide entertainment, but to get power. Santa Rosa has been a stronghold of old customs, and it was felt that its orthodoxy was being undermined. Therefore people dreamed less, and prosperity was failing. One [750] shaman who attended the dance said that he expected to get from it power to cure automobile accidents, which had been hitherto entirely outside his sphere.

787 The whole dance was dreamed by the keeper of the smoke, a man of ninety. In 1930 he had a severe illness, and when he achieved the state of semi-consciousness propitious for dreams, had the following vision.

787 177 He was taken to a great city in the East "with high stone walls like canyons." He met a ceremonial clown and asked how he came there. The clown said: "People from this eastern land took my picture and

787 carried it with them to the ocean, so I was drawn after it." The clown
then offered to lead the old man home again to Santa Rosa. He
177 moved under the earth, as a ceremonial clown always does, guiding
the man above by his singing.

He led the smoke keeper, not to his home, but to the shrine outside the village, where four children were once sacrificed to prevent a flood. The children came out singing, and they and the clown led the old man through all the familiar sites of legendary Papagueria. They went to Superstition Mountain, where a group of people was turned to stone in the legendary flood. They crossed water, as did Elder Brother and his conquering army. At last they came to the "Earth Navel." It was in the shape of a thatched council house, hung with all the implements of ancient Papago life. There were upon it bows and arrows, masks for singers in the prayer-stick festival, and rain symbols. Above these was a tall pole, painted red, white, and blue. The clown said to the old man: "See, the white men are correct; the earth moves," and as he looked the house with its pole began to revolve. Then the clown bade him: "Look at all these things that our people used to use. Think about them and tell the people also to look and think once more. After that, if they wish to abandon them and take up White ways, let them do so."

Then the flood children went singing home, and the old man followed.

787 On the basis of this story, the old man composed a series of
x796 songs, which (after the manner of the songs in the origin myth)
533 refer to the crises in the story rather than explain them. He had
778 huge effigies made by the villagers, representing the children's
shrine, Superstition Mountain, and the earth navel. These were
decorated with birds and animals in clay, wood, and oilcloth and
with all the paraphernalia he had seen in his dream. They were
placed on the dance ground some thirty feet apart and acted as a
stage setting.

x796 The old man taught his songs to the scraping-stick musicians
533 and to all other men in the village who wished to learn, as well
as a number of the older women. For this purpose they gathered
nightly in the council house for a month. He told the singers the
dream on which the songs were based, but no one else knew unless
some singer explained to him. The old man then selected ten

MODERN SONG CYCLE

There are still many song dreamers, young as well as old. Many 533
songs consist merely of variations on the standard poetic phrases, 787
but a few deal with the entirely new background introduced by
the whites. One composer has a modern guardian spirit, the devil. [776]
This visitant, as has been mentioned, cures diseases due to those [199]
white man's importations, the horse and the cow. He has also, in
nightly wanderings, sung to his protégé songs concerning railroads
and telegraph wires.

In some of these the words are placed with excellent onomato- 533
poetic effect. The custom of using extra vocables is a great op-
portunity for the introduction of appropriate sounds, and this
has been done in line three, where the regular bumping of a train
over the rails is imitated. In the last line the syllable *amo* has
been added to two words as the train disappears trailing smoke. [522]
The humor may need explanation. That anything so sacred as
a cloud hangs over the iron wagon makes it seem, at first, divine.
Then the error is dissipated.

THE APPROACHING TRAIN

533
539*

17. The iron wagon hither runs.
The iron wagon hither runs.
Over it a cloud is lying.
Oh! It's only the smoke.(12)

RAILS

18. Yonder far I ran,
Walked and ran.
Iron stretched out.
Then I beside it ran.
Nowhere did it end.
It stretched out.(12)

In this song the diphthong *au*, in the words meaning "to stretch," is lengthened and emphasized with realistic stretching effect.

633
x539

TELEGRAPH WIRES

19. Westward is an iron road
Above it iron stretches;
Humming, it stretches.(12)

DISTANT TRAIN

20. Telmot Mountain!
Telmot Mountain!
Up there, on the edge I lie,
Everywhere looking.
Far yonder, toward me,
A burning feather headdress
Upon me shines.(12)

THE BLENDING WITH CHRISTIANITY

177 794 Ever since the late seventeenth century, there have been Papago who were properly baptized Roman Catholics. Yet there was never a church in desert country until after the arrival of American priests in 1909. For over two hundred years, then, the contacts of the Desert People with organized Christianity have been intermittent and mostly of their own choosing. The result is some versions of Catholic ceremony which are of their own devising, but are cherished to this day.

797 The first baptisms in Papago country were made by Father Kino, the famous Jesuit missionary who labored among the Pimans from 1687 to 1711. Kino established a string of missions in what is now Sonora, with only two north of the present international border. These were San Gabriel, at the village of Guevavi (later moved to Tumacacori), and San Xavier, at the village of Bac (Papago, *wahk,* the hollow place). Their site, in the fertile valley of the Santa Cruz, is now occupied by Tucson and other towns. It was then the home of the Soba Jipuri, a branch of the Pimans which has become almost extinct.[1] Kino was particularly impressed with the agriculturists of this valley, and he stocked their missions well with grain and cattle. Probably, too, he gave them the standard organization for a mission church, with native sac-

---

[1] Underhill, 1939, pp. 15-17.

797 up the Sonora missions, owing to poverty and the Apache raids. They concentrated on the two just above the Arizona border, Tumacacori and Bac.

797 These big irrigated villages had been, so far, occupied by the
794 Soba Jipuri, a people of somewhat different culture from the Papago, though of Piman speech.[8] There is no telling how much contact there had been, for these valleys were well within reach of the roving Papago. Now, during the late eighteenth century, the Apache raids grew more menacing; the Soba Jipuri villages broke up, and the Papago, who had less to lose, seeped in to occupy the land. Finally a smallpox epidemic practically wiped out the Soba Jipuri, and Bac, with its Franciscan church of San Xavier, became a village of the northern Papago.

794 At last the Desert People had a chance for continuous church membership, though Bac was not in their own country and most of them only stayed there for part of the year. Some took part in the church organization, and even today they install church officers at New Year's with the ancient ceremony first established in New Spain. When the Franciscans, too, left the missions, during the Mexican war of independence (1821–23), the Papago saved the church vessels and the holy images by burying them in the desert, just as they did with their own metates when they moved camp. They still tell legends of how the images called to them from underground when it was time to recover them.

794 Even the Papago inhabitants of Bac went back to the desert
● 177 for part of the year, and they still retain their village affiliations
484 with Archie and Akchin. The other Papago remained aloof from the churches, merely making their occasional trips "to get names." For this purpose they often chose Mexico, rather than the nearer Bac, for they could combine the journey with a winter of paid work for Mexicans or acculturated Indians. Kino's plans for in-
794 doctrination had not worked out, but the Papago did begin to
177 acquire some fragments of Christian ritual in the course of their visits. Living in some household of Hispanicized Indians, they could learn a few prayers, hear saint stories, and acquire a crucifix without any of the attendant discipline. The crucifix early

---

[8] See Underhill, 1939, pp. 15–17.

The crucifix early [778]
achieved status as a fetish, and the writer has known shamans to 794
prescribe it. The same is true of prayers. In a case of epilepsy, 177
which was, perhaps, an unfamiliar disease, the diagnostician did
not call for guardian spirit songs in the usual manner, but, instead, ordered the women to sing the Rosary.

There was little attempt to reconcile the Papago and Christian 182
theologies, although some very modern Papago now speak of 779
I'itoi as the Papago Christ. The important supernatural adopted 177
from the new religion was the devil. One remembers the posi- 776
tion of this character in Spanish folklore, where he often appears, not as a dignified arch fiend, but as a coyote-like character who is always being worsted. The *tciaur* (Spanish, *diablo*) as described by the Papago, is a being of this type, gay, silly, and even kindly. He is not unlike the Papago guardian spirit, nor is he foreign to the scalp mannikins, dirty and mischievous little spirits who drive people mad with love.

We hear echoes of the scalp mannikins in the plaint of one girl 177
who had been married to the devil in a dream. "Do not sing for 787
me," she said to the people who came to cure her. "Only those 776
can be free of the devil who wish to be free, and I have been married a long time." She described her supernatural spouse as old and bearded, dressed in white man's clothes and owning a car. Nightly he took her in it through the mountains and showed her the piles of unmined gold and silver. Her obsession has reminders of the scalp mannikin legend and also of the snake, who marries young people, making them neglectful of human love. A gayer vision of the devil was that of a young man who danced nightly on the mountains with devil boys and devil girls.

To another, the devil came quite in the guise of a guardian spirit. He looked "like a Mexican, with yellow face and black moustaches."(12) He appeared riding a horse, at the head of a cavalcade of devils, all singing. This arrival, announced by a song, is typical of the guardian spirits. Commonly the song is used for curing a disease sent by the spirit itself. In this case the song cured ailments of horses or the "horse disease" in humans. The linking of the white man's animal with the white man's supernatural seems very logical. Perhaps, had the Papago been left un-

177
776 disturbed, the devil might have developed into a guardian spirit
787 in good standing.

There were some more organized versions of Christian belief.
788 One of these grew up among the northern Papago, who had retained their tradition of a yearly pilgrimage to Mexico. In fact, their goal was Kino's old headquarters, the church at Magdalena, in the Altar valley. Gradually the visit there became formalized, so that instead of a winter sojourn by individuals or families, it
[484] was a pilgrimage of several weeks, made by half the population of a village. The Franciscan priests who today control the missions believe that the custom may have had its roots in Jesuit times. Otherwise, why do the pilgrims always bring home the picture of St. Francis Xavier, patron of Jesuit missionaries? The Franciscans suggest that, had they instituted the custom, they would naturally have used the picture of their own patron, St. Francis of Assisi.

The journey as an institution lapsed some years ago, when a Mexican revolution closed the churches. Until then it had been one of the great events of the year for the northern villages. This is how one participant described it, in the days when the journey was made by wagon.

> Everyone who can sell a cow and get money goes. There are about a hundred wagons in a big long line, and they make a camp circle at night. The lady that gave the statue of St. Francis to our church always takes it with her to be blessed. She carries it in her trunk, wrapped in a blessed cloth, and when she camps she sets it on something, never on the ground. . . . When they get to Magdalena, they go straight to the church and get their property blessed. Then they have a good time and buy things.

788 As indicated by the last lines, the days in the rich Mexican
439 valley were as much a carnival as a religious exercise. The little town of Magdalena brought out its stores of fruit, candy, cheap jewelry, and Mexican finery and held a fair in the plaza. It was from this source that the Indians brought their most cherished white man's goods. Only recently has it been displaced by the nearer markets at Tucson.

000 The Indians always saved a little money for candles and holy

The Indians always saved a little money for candles and holy relics. It was the possession of these, say the present-day Papago, which led to the building of the little "Sonora" churches dotted over the reservation. These are managed by the Indians themselves, without a priest, and the official church organization refers to them as unaffiliated. It is hard to establish the date when the first one was built, but a middle-aged Santa Rosa woman insists that they go no farther back than her own grandmother. This grandmother was a *'sénat* (señorita) who married into a family of northern Papago, while they were wintering in Mexico. She returned with them to Papagueria, was surprised at their lack of churches, and suggested that her family build one to house their holy relics. They put up a one-room adobe house, in the Papago style, but added a stuccoed false front to imitate the façade of a Mexican church. The form became standardized, and now the reservation has some hundreds of these miniature sanctuaries, appealing as a drawing on a child's slate.

794
177

Each is sponsored by a patriarchal family, with those of its connections who are friendly and live nearby. This is just the sort of unit which used to prepare new fields or found a village. Two of their number are chosen head men and seem to take the place of the two *fiscales* prescribed in Spanish colonial organization. These see to the upkeep of the building and organize the feasts, collecting food from the members and assigning duties. No priest attends, and some churches will not allow one unless, perchance, he comes from Sonora. The service consists of the chanting of a few series of prayers, such as the Rosary and the Benediction. Almost always the officiant is a woman. Perhaps this is due to the first *señorita,* who offered to lead her adopted family in the Ave Maria and the Pater Noster. It was an innovation for the Papago, whose pagan ritual was entirely in the hands of men, but doubtless they had seen the predominantly feminine congregations of Mexican churches. They say, as many Latins do, that it is women who have time to learn the prayers; yet in turning over this function to females, they have kept as close as possible to their old ritual pattern. The woman officiant belongs to the lineage of the "head man" and is usually his sister or daughter. She passes her lore down to a daughter or a niece.

794 177 The Sonora churches have no regular Sunday services. The dates celebrated are Christmas, Easter, All Souls' Day, and one or two saints' days. Supposedly the festival celebrated is that of the patron saint, but few Papago are clear on this. In their minds all the chapels are dedicated to San Francisco Xavier, whose photographs crowd the walls. This picture shows the effigy found in so many Jesuit churthes, representing the saint, clad in his bishop's robes and lying upon his tomb, as he does in his own mission church at Macao in the South Seas. No step in acculturation could [761] be more drastic than this cult of a dead man, by the Papago, who fear the dead and taboo their names. To the writer, it seems possible that they never grasped the fact that the pictures do represent a sarcophagus.

x796 177 496 For a week before a feast day all the related families who "own" the church work hard. The men clear the grounds and repair the adobe building. They straighten the wooden cross which stands opposite the door some forty or fifty yards away. They clean off the dance ground, a flat space of gravel between cross and church. Generally this has over and around it an arrangement of poles and cross pieces like the skeleton of a tent, and these are decorated with paper pennants in various colors. In the feast house, an adobe building next door with a huge outdoor kitchen, the earthen ovens are cleaned, and wood is brought for fires.

The women clean the inside of the church, dusting the photographs, laying clean cloths on the altar, and perhaps making a new saint's bed of silk and lace. On the earthen floor they lay canvas. Then the most skillful ones sit down to make crepe paper flowers to decorate altar and outdoor cross. Others clean the kitchen and the big wooden tables in the feast house, where the whole village will be asked to dine. The group of owner families has been assessed for meat, beans, and canned goods. Toward the end of the week all the women gather at the feast house and spell each other in baking bread.

x796 177 At twilight on the eve of the feast day dinner is served to all comers. The two head men take turns acting as major domo, the women cook, the young men wait at table, the girls help in the

kitchen. Several beeves are consumed on such an occasion, and 796x
a hundredweight of bread. After dark there may be a service in 177
the church led by the woman officiant, and here the scene is outstandingly Mexican. Women crowd in and kneel in the tiny space, while the men stand outside.

After the service, the whole congregation forms a procession, like that to be seen in so many Mexican towns. The head man carries the saint's image, and perhaps two acolytes hold an arch
of paper flowers over his head. Behind him comes an orchestra [533]
of guitar and two violins, which may cost the church owners
twenty-five dollars a night. Then comes the congregation, men first, women following. They march to the cross, which the head man circles, while the followers turn about face, and then they return to the church where all leave contributions in the clay bank on the altar.

After this, comes the dancing. The orchestra takes its place in
a booth, and the men make a fire if the night is cold. Old people, [535]
young people, and children dance a sort of polka. The Papago
know that this dance was brought from Mexico, but they still
observe some of their own rules. Girls dance with girls and boys [576]
with boys. Respectable women dance only with their husbands.
The dance ground contains as many small children as adults.

In the dark, at the outskirts of the dance ground, drinking goes 796x
on. So does lovemaking. Both these relaxations were a part of 177
the old rainmaking ceremony, and a few years ago the drink 786
served at church fiestas was the native cactus beer. At present it is 273
hard liquor brought in by bootleggers, and drunkenness is sometimes extreme. This change is hard to assess exactly, for the very same thing has gone on in Mexico. Many Sonora Indians, like the Papago, practiced ceremonial drinking and have now transferred the custom to Christian feasts. The Papago may have copied their Mexican neighbors, or the change to a near orgy may have been a parallel development with all. Certainly when people begin to revive on Sunday afternoon (the dancing goes on throughout Saturday night), there are usually some serious injuries to be found and occasionally a death.

These unaffiliated churches may have been developing at the 794
177

794 very time when Franciscan missionaries again reached Papagueria, 177 in the years after 1909. The Brothers Minor now have four missionary churches, including their old post at San Xavier and three in the desert. Their visiting priests reach many of the villages, and slowly they are working to bring the unaffiliated churches into line. It is not uncommon for people to attend services of both branches and sometimes of the Presbyterians as well.

x796 The Franciscans found another form of Christian ceremony 177 already established, principally among the southern villages which have direct access to Mexico. This was the sacred dance, with clowning, encouraged by the early missionaries as a means of dramatizing Christian tenets for their savage converts. Unlike the "Sonora" festivals, it was carried on under the direct auspices of the church, and it is so still. Exhaustive studies have been made of this kind of mummers' play among Yaqui and Mayo.[4] With these Mexican groups, as with the eastern pueblos, the celebration takes place at Easter and often includes a dance by men in non-Indian dress known as the *fariseos* (pharisees). Echoes of this custom appear among the "Easter devils" at Kavorik, on the Papago reservation.

Kavorik (Cowlic of the whites) is a town near the Mexican border which has recently received direct immigration from Caborca. It has a churchly organization on the Spanish mission style, and during Passion Week, a churchly celebration unknown among other Papago. During the whole week there are antics by masked men known usually as *tciaur* (Spanish, *diablo*). However, informants also used the term *fariseos* and also *Navitcu*, the Papago clown of the prayer-stick festival.[5] The mask is not that of Navitcu, for instead of being a simple deerskin bag it represents a horned animal, and it may be of calfskin. Still, it is made in the regular ceremonial style, by an old man whose function is hereditary. The impersonators also carry a long cactus stick, as Navitcu does and must pledge themselves, as he does, to serve for four successive years. Also like him, they do not speak but utter cries in the *kachina* manner. There may be twenty impersonators—some wearing masks of deerskin, some of calfskin, and some of peccary. The

---

[4] Parsons, 1934.

[5] Underhill, 1934, pp. 415-17.

horned creature they represent looks like no animal in particular 746x
and is said to be the devil. The rest of the costume consists of 177
old, ragged clothing, though formerly the impersonator went naked. Youths who volunteer for this service expect to gain good [777]
fortune, like other ceremonial performers.

The devils appear on Wednesday, Thursday, and Friday of Holy Week. During these days everyone guards his yard enclosure with a cross, because anything not so protected may be appropriated by the devils. "This is to teach the people how to guard against bad people." The devils come around, gesturing and scaring the children and will take anything outside the yard. The remedy is to make the sign of the cross; then the devil will run away. If he has taken anything, one may chase him with a crucifix or make him an offering of a cigarette(!); then he will drop the object. The devils are particularly active on Good Friday night. On Saturday morning, everything that they have taken is piled up in front of the church. The people come to claim their property and pay a cigarette or five or ten cents. Otherwise everything is burned.

After the redemption of property, the devils are whipped with 785
branches of *Encelia farinosa*. This, when they were naked, was a 177
serious affair and meant really to hurt. There is a whipper for each devil, chosen by the old man in charge of the arrangements. The devils do not resist, but come docilely and kneel. Just before the whipping the people throw flowers on the devils. "These are from Santa Maria Guadalupe," they say. The reason is that "once when Guadalupe was on this earth, a man threw flowers on her, asking for rain. You can see the flowers on her robe now, although some call them stars." Throwing flowers has since been [788]
recognized as a way to ask for rain from the Christian supernaturals. After being whipped, the devils remove their masks and throw them on the fire, where the booty is being burned. They say: "Now I shall feel happy. I shall relinquish my work. I shall continue four years, then I shall finish. Whoever is a friend to me will assume this duty and will follow as I did."

After the devils have been disposed of, there is social dancing 536
in couples, in the Mexican style. At intervals a "pascol" dancer, 177

535 like those seen among the Yaqui, performs his shuffling solo dance
177 in bare feet, his calves wound with strings of cocoon rattles. Otherwise he wears his ordinary clothes. Few Papago know this dance, and the performer may be imported from the Yaqui settlement in Tucson or from Mexico.

X796 No other Papago village performs this ceremony, which, says
177 tradition, was brought by immigrant Papago from south of the border. However, Santa Rosa, in the north, echoes some elements of it. Here, on Saturday before Easter, the people gather at the Roman Catholic Church, but without a priest. They are laden with flowers, a custom unknown in Papago ceremony, but common in Mexico. They march to the outdoor cross, chanting and scattering the flowers. Then they meet in the church, where relatives present one another with baskets of food, particularly sweet cakes.

Another ceremony, containing more Papago elements is that given on Holy Cross Day at the little village of Santa Cruz (Papago, Mulberry Pond) in the Pisinimo group. Though Holy Cross Day is the fourth of May, one is tempted to connect this ceremony with the old cleansing dance held in November, especially elaborate at Pisinimo. The elements of the ceremony, it will be remembered, were the ritual killing of a deer and a dance around deer meat and garnered crops, after which the meat was eaten as a charm for health and luck.

At present, after mass a steer is blessed by the priest, then roped and killed in front of the church. Then the people, carrying several saints' pictures from the church, walk in procession to a stone cross a quarter of a mile away. The pilgrimage, conducted by the sacristan, with the people singing in Spanish, is in the style of the Spanish church ceremonies of two centuries ago. The progress is in seven stages, with seven halts, when the holy pictures are set down on a sheet spread by the acolytes, while all the people kneel and pray. When they reach the cross they are met by women with specially baked cakes in the shape of a cross. Everyone takes
[777] a cake and eats it for good luck, as they once ate corn and venison. Then they rise and walk back to the church, bonfires being fired on each side of the road as they pass.

Other ceremonies celebrated with the co-operation of church 796x
authorities are St. John's Day, the Day of the Assumption, and 177
All Souls' Day. The writer saw St. John's Day at Santa Rosa. The
church was decorated with paper flowers, and on the evening of
the day (arrangements could not be made for the evening before,
which was the correct time) the women sang the Rosary. Then [533]
a hired orchestra of Papago, with violins and guitars, took their
places outside the church. The boys and girls danced in couples, [536]
a Spanish form of fox trot, until well after sunrise the next morning.
Then a "chicken pull" was held. This is the Spanish *corso* [526]
de gallo, in which a live cock is buried to its neck in the sand
and horsemen, galloping past, lean over and try to pull it out.

The feast of the Assumption was very similar, but without the chicken pull. On that night women put up a canvas shelter outside the church and cooked a huge meal of beans, tortillas, and boiled meat. Inside the church the Rosary was sung and then the young people danced all night. There were some villages in which this dancing continued three days.

All Souls has versions varying from the completely Christian [796]x
to those with decided Indian flavor. It should be mentioned that 764
all Papago now have Christian burial. Perhaps because their own 177
treatment of death was so unceremonious, they have found room for the funeral practices of the whites more easily than for other religious services. Whereas the corpse was once thrust into a crevice and sealed in with rocks or housed, seated, in a cabin of stone, it is now laid in a coffin and buried, facing the east. Whereas there was only a hasty farewell, with the adjuration not to return, there are now prayers by a clergyman or at least a layman.

But the custom of placing gifts with the dead persists, or did
in 1932. Expensive clothes and saddles are often bought, and the
grave may be lavishly stocked with goods and food. Some families
keep dishes at a grave from year to year, and one dish, seen by the
writer was in the ancient ceremonial duck form. On All Souls'
night a feast for the dead is set out in many a house, but the [796]x
family does not share it with the departed in Mexican style. Papago
fear of the dead is too strong for that, so the living leave [761]
the house and spend the haunted hours in church.

794 797 177 The Protestant services held on the reservation show no such blending of Christian with pagan, for the Protestants demand a complete break. Only one sect is present in Papagueria, the Presbyterians. They have had missionaries at work since before the reservation was established and have now three or four churches, with native missionaries. This sober sect, lacking in the pageantry of Catholicism, nevertheless fits at some points into the Papago pattern. The Papago, from their very poverty, could not indulge in pageantry to the extent common in the Pueblos and it may be that they did not feel such necessity for ceremonial display in a new religion. On the other hand, they were used to a council meeting in which elder after elder delivered a speech of admonition, exhorting all to adhere to the Papago moral law. The procedure of a Protestant prayer meeting is highly sympathetic to such people.

794 177 A further appeal is made by the singing. The native missionaries are taught, as part of their training, to play the piano and to perform part singing, and they make a point of teaching hymns to their congregations. The hymns used are modern ones, with lively choruses, and in these the Papago delight. They are enchanted with the part singing, which is new to them, and will croon over a bass part for hours, as they once did their ceremonial songs. The various rural churches compete in singing at their yearly camp meeting, and the feeling of rivalry then aroused is a little like that at the old intervillage games.

At present every Papago, except the very old, has some church affiliation. Some attend all services occasionally, while also patronizing the shaman. Still, acculturation is proceeding so fast that this nondescript stage can hardly endure. The different areas show signs of settling down to permanent allegiance, mostly dictated, as Papago economics are, by family affiliation.

Pa by orators whose hereditary function it is to tell it dramatically, Pi many informants are vague about the connection between the two parts. They tell the first part as though it had happened to the 173 present Pimans, describing carefully how Elder Brother taught 177 them many of their arts (though never great house building). Then comes the resurrection, unique in the myths of the area, and Elder Brother reappears as a war leader. But again his people are the present Pimans.

Pa It seems obvious that two myths have been joined to produce the narrative. The first, dealt with in detail under Ceremonies, Pi shows likenesses with the myths of Mexico, of the Yumans and of 171 the southern California Shoshoneans who were in contact with them. It mentions specifically the origin of the drinking ceremony which is Mexican in affiliation. The second, beginning with the emergence from underground, resembles the migration myths of the Pueblos, and mentions distinctly that the Wiikita (prayerstick ceremony) the one completely Puebloan ritual, was instituted after the march of conquest.

The tale indicates intimate connections of the Papago with the Sonoran cultures and so do such ceremonials as the drinking feast, the intervillage games, and the salt pilgrimage so similar to the Huichol pilgrimage for peyote and containing, perhaps, a reminiscence of a time when the Gulf of California was not so distant from the Papago habitat. It also shows Pueblo connections in the point for point correspondence of the Wiikita with Hopi ceremonials and in scattered resemblances, constantly appearing. But other Papago traits have their most direct resemblance with the Shoshoneans of the Basin or of California. Such are the extreme importance attached to the menstruating woman, the cult of the eagle, the local organization of the ceremonial leader and the fetish. Many of these are not unknown to the Uto Aztecans to the north or to the south, but they appear there obscured by other more elaborate developments. Their important place in Papago life needs historical explanation.

Such explanation involves careful study, ethnological and archaeological, of the Piman Sonoran area and the trails leading to it. Kroeber has pointed out the resemblance of pottery made by the Mission groups, Cahuilla, Luiseño and Diegueño and by the Seri of Tiburon Island to that of the Papago.[1] Sauer and Brand found on the fortified hills of southern Papagueria and northern Sonora a pottery unlike Hohokam,[2] and the connection of these

---

[1] Kroeber, 1925, p. 703.

[2] Sauer, 1931, pp. 116, 117.

621 197 close resemblance. Comparison however, is difficult since the Pima have undergone such rapid acculturation in recent years. Kino, visiting these people in 1689, before they had received the name of Papago, found them in close communication with the people of the Gila[1] from whom, apparently, they had learned to receive him "with arches and crosses." This communication continues, many of the Archie people having relatives in Pima country and going there regularly to help in the harvest.

621 197 •177 [191] The Archie group was the one furthest from Spanish influence and acculturation has been slower there than in the south. Few of the people speak Spanish and few over forty speak any English. They did not begin to keep cattle until long after the southerners. Basketry still flourishes among them and even the old plaiting technique is occasionally found. They retain many of the old ceremonies abandoned elsewhere. The important Puebloan ceremony of the Wiikita "belongs to them because it is they who have the songs and the scraping stick." They have also, in every village, the old ceremonial leader, in addition to the modern "governor" and have usually an ancient round ceremonial house. Aapap and apki sibs predominate and are the ones featured in ceremonies.

621 The Archie division includes four village units, that of Archie itself, Mesquite Root, Akchin, and Komelik. These have a closer approach to federation than have any of the other villages, acknowledging the Archie chief as their leader, much as the Pima acknowledged the chief at Sacaton. Their statement is that all of them "the true Papago" settling at Archie scattered seed which blew down the valley as far as Mesquite Root, thus establishing their claim to the land. Komelik, which is even farther away was a later offshoot.

Archie Village Units

Archie (aatci, the Narrow Place)

At the head of the Santa Rosa Valley. Oldest settlement of the Papagos proper, and head village of its dialect division. Locale of the quadrennial harvest fest which is performed only by the four village units of this division. The village was visited in 1698 by Kino who found seven hundred people there and called it "the great rancheria of Adid" which he re-named San Francisco.[2] Archie's present Well is Cirenaca (siri nakia, saddle hanging) or San Lorenzo, and a few people have Fields at Beebhak.

---

[1] Bolton, 1936, p. 396.

[2] Bolton, 1936, p. 398.

Bac (vahk, the hollow place) 621

The large and important village of San Xavier del Bac, once a stronghold of the Sóba Jípuris, now ranks as a daughter village of Archie, having been settled by its people as the Sóba Jípuris died out. Bac is the only one of the old irrigated towns now on the Papago reservation. In Kino's time, while the Sóba Jípuris still held it, the Father Visitor thought its irrigation compared favorably with that of Mexico City itself.[1] But during the eighteenth century, the Sóba Jípuris died out of some contagious disease and the desert Papagos seeped in to use the fields. The writer was able to find no traditions among them which differ from those current on the reservation, [177] but Bac has long been under intensive White influence and all native traits are fast disappearing.

The village was given a missionary in Kino's time and continued to have one, at least intermittently, until Mexico's separation from Spain. It was the only town above the Mexican border to have this intensive Spanish influence and it may have been for that reason that the Sóba Jípuris remained there when they left the other Santa Cruz villages. The church founded by Kino is still there and the people are definitely Catholic. 621 797

The present Bac people are largely from the Santa Rosa neighborhood. Many of them retain their old fields and vibrate back and forth. 621

Santa Rosa (kaitc mĭhk, Burnt Seeds) is an offspring of Archie which has far outgrown the parent village and now has a chief and ceremonial leader of its own. It uses several wells. Covered Wells is the largest and oldest, a place where water could be reached through the gravel of a sunken stream; others are Comobabi (shared with Akchin), Cobabi (Badger Well), Noipakam, and o'ot wahwia (Sand Wells). Offspring of Santa Rosa is the village across the wash, really an extension of the parent village and called kokomat kĭhk (Palo Verde Standing), also sikorhimatk (Where Water Whirls Round), on the road to Sells. Bolton thinks that a delegation which visited Kino at Mesquite Root may have come from this last place.[2]

Akchin (ak tcinyi, Mouth of the Gap)

In the valley with Archie and Santa Rosa and so close that the three act practically as one, though having separate governments. All three join, with Anegam in the harvest feast and the drinking ceremonies. Kino visited Akchin in 1698, was welcomed by four hundred people and baptised sixty one

---

[1] Bolton, 1936, p. 268.

[2] Bolton, 1936, p. 399 note.

621 Their native government, as far as it persists is modelled on the
Spanish colonial regime with a secular governor and a whipping
[794] post to punish transgressors. They all profess Christianity, the
majority Catholic but a fair number of Presbyterians. None of
•[177] the old ceremonies are now held but a few have been amalgamated
with Catholic ceremonies to form a new ritual.

The Kokololoti and the Archie division are the two most com-
621 pletely at odds in traditions and customs and political splits are
184 most likely to occur along their geographic lines. Among Tecalote people the maam and waaliw sibs predominate, but there are also many of that nondescript sib, the ókari who do not know their moiety and are accused of being no sib at all but a catchall for scattered people whose sib was lost.

Kokololoti Village Units

621 **Kupk (Closed, referring to a dam)**

This and the other villages of the dialect division occupy the broad Quijotoa Valley, known in Spanish accounts as the Llano, or plain. The Papago name for the area is komaki wĭhtco, (Under the Gray Mountain) which the Spaniards wrote El Comac. Kupk, the parent town, has shrunk and the prominent place is now taken by Pisinimo, whose name is said to come from the fact that a Bison head was once brought there. This would have meant importation from a great distance and the only possible agents are the Apache but the legend is vague.

Pisinimo has as daughters hahri mīhītak (Burnt Squash) and Cheeweeton (Long Pond), and Mulberry Pond or Santa Cruz. The Well for all four is Poco Blanco, while Kupk still uses San Antone.

Another recent offshoot of Kupk is Kavolik or Cowlic. This was originally not a field but a mesquite grove. Some families moved there from kupk and others from its relative, Tecalote. Another group of immigrants came direct from Mexico bringing with them Mexican ideas of government and housing. They wanted a plaza, with houses in regular rows
[184] and the Mexicanized Catholic ceremonies so familiar in Sonora. They live together in a group and engineer the Easter ceremony which is unique among the Papagos but otherwise have not converted the village to their views. Kavorik has a daughter, Burro Pond, and a smaller one upat kĭhk, Acacia Stands, which uses a Well in the mountains south of Sells.

Tecalote

This village, near the border, is in the same broad north-and-south plain with Pisinimo. The plain extends south into Mexico where many of the wells are. In Spanish accounts it

In Spanish days, however, it was the individual who was punished 157
and usually by whipping. It is hard to be positive that whipping is a 681
foreign institution yet it seems likely since the Papago are chary of 797
physical contact especially in public. This may seem surprising in a 177
society where ten or more people could live and sleep in a one-room [362]
house, but one may conjecture that it is an avoidance generated by
that very fact. They maneuver without touching one another where
Europeans, who have more privacy, are continually doing so. They [861]
did not, anciently, slap or whip children. It is to be expected that a
people with this attitude would object to corporal punishment, particularly when they have cultivated such a violent sensitiveness and openness to humiliation. The missionaries, on the contrary, whipped their neophytes as they would whip the children they considered them to be. That the Papago should have been willing to adopt this system is the surprising thing. We may lay it to the extreme prestige of these givers of wheat and horses, and also to the fact that the native selected to dispense whipping felt himself raised to the supernatural power of the priests. Certainly the institution of whipping grew, from the eight stripes delivered by the *alcalde* for drunkeness or absence from mass to a standardized penalty for all misdemeanors, sometimes including murder. Those which were mentioned as always whipped fall under the heading of sins in the Christian sense. A list of these offenses and their penalties follow:

Murder: The chief would have the murderer whipped and force him to make restitution in property. 681

Adultery: Both offenders whipped and the wife sent back to her husband.

Quarrels between spouses: Either a wife or a husband might complain of the other's laziness, cruelty or light conduct and have the offender whipped.

Disobedience of children: Parents might complain of laziness or [861]
light conduct, particularly in a daughter, or of her disobedience in not taking a husband. Some cases are reported where the chief felt that the parents had been in the wrong and had them whipped instead of the child.

Slander: All reports of misconduct were investigated and if, they proved untrue, those who had spread the rumor were whipped, whether male or female.

There follows a provision heard from only one informant and showing an interesting combination of the old and the new systems.

> If a father failed to have the puberty ceremony for his daughter at the proper time, he should be whipped. If he proved that he had not been told, the mother was punished instead. (26)

and this girl was dead. The men dragged them out into the rain and 841
the house began to burn. Her relatives buried that girl all alone and no one would go near." (26)

"Then there was a girl who was going to build a fire and it seemed that it reached out and took her and burned her up." (26)

"And there was another whose mother was struck by lightning. Because when a woman commits this fault, anyone in her family may be punished. That is why, when the lightning strikes a village, they send for the shaman to see what woman was dangerous. He summons all the girls and looks at his crystals to see whose fault it was. They don't punish that girl. She knows that she has killed her relatives and that is enough." (26)

Women admit that an intrepid woman, if she were particularly busy, might conceal her state for a day or two. "But not more. She would be too much afraid." She might also practise the reverse procedure and keep her husband from going to war by telling him falsely that she was menstruating. An injury like this would be far less likely to be forgiven by a husband than would unfaithfulness,

As a rule, the women found the four days segregation no burden. Rather it was a pleasant chance to sit still and give up the household responsibility. They took their basketry to the hut where all women, except first menstruants, might visit them. The groups gambled, sang and told stories. No man might shout to the menstruant or even look at her from a distance. A tale recounts that once a woman in the segregation hut saw an approaching party of Apaches. She shouted to some men in the fields but they would not turn round nor watch her signals and she dared not approach, so the Apaches
attacked the village. Another local tale says that a woman who [578]
frequently quarrelled with her husband would on each occasion retire to the hut whence he was powerless to get her back. He had to move the family before she would come out.

The segregation custom is still in use, though not so widely as [177]
formerly.

DREAM POWER AND CHOICE OF CAREER

The puberty of the youth was not signalized. Even though he 881
married, he continued in his father's house without much change 884
in status until he achieved some noteworthy deed which stamped him an adult. There was no ceremony or definite crisis. He began to take part in men's affairs; ultimately would be consulted and would speak in the council.

Papago life admitted of a number of specializations. A man 463
could be a leader or a ceremonial officiant, a planter, hunter, 787

765 Still, those who were not afraid went occasionally to the grave, sometimes taking food. Bodies tended to mummify in the dry air and could be seen through the chinks in the masonry looking as in life. One Mexicanized woman told of going for years to look at her dead husband with his red sash and his violin. Another married a second husband and, when she still kept dreaming of the first, the second went to the grave and threatened him: "Leave her alone or else I will dig you up and burn your bones!"

765 ●177 There is a yearly festival of feeding the dead, which is now thoroughly amalgamated with the Christian feast of All Souls, but which has some likeness to the Aztec custom of sending property to the dead by burning once a year for four years.[1]

766 The feeding and gifts for the dead applied only to those who had been buried. Those who had died on the warpath or at home, from enemy wounds, were cremated, without ceremony. Only purified Enemy Slayers were competent to touch the corpse or his effects, because "it would make them sick". The officiants followed no ritual. They placed the weapons with the body, piled what wood they could find over and under it and burned it as quickly as possible. The kindred wailed but not at the cremation site, "because they were afraid."

Cremation was definitely for the purpose of destroying enemy magic, for it did not take place after accidental shooting at the hunt, nor after murder by a fellow Papago. Only enemy wounds made it necessary. That the enemy need not always be the Apache, is shown by a Spanish account which relates how, when a Jesuit priest was killed by revolting "Pimas" his friendly parishioners burned his body; "this burning is the manner in which the Pimas treat their dead whom they most esteem".[2] It was not the heroism but the enemy magic which necessitated the burning.

766 172 The Hohokam, or ancient inhabitants of Papagueria, habitually burned their dead and kept the ashes in jars. If the Papago, as Gladwin[3] suggests are degenerate remains of this ancient culture, their habit of cremation in this one respect, might be a survival of the former practice. But it might equally well be related to the custom of the Aztecs, who disposed of their dead by cremation or burial, according to the manner of death.[4]

768 Immediately after a death of any kind, the family pulled down the house to prevent its being visited by ghosts. The house was a

---

[1] Sahagun, Seler p. 297.

[2] Velarde section 3, p. 145.

[3] Gladwin 1929.

[4] Sahagun, Seler, pp. 300, 301, 298, 299.

ACCULTURATION

The picture of the Papago given here is that of a people forced by their environment to a low subsistence level. Due to old habits and old alliances, they did not move out of that environment or even make raids on the agricultural kinsmen about them. Their solution was hard labor, peaceableness and the cultivation of friendships that would protect them. Their informal social system was held together by ties of family and of community duty which could not be broken without danger to livelihood. But as livelihood changed, organization changed with it. These pages follow the change in social customs consequent on a raised standard of living. 177

The Papago were fortunate in being able to take their Spanish acculturation slowly. Kino's visits were long enough for benefit and stimulus, not for tyranny, and when they ceased his charges were left, for two centuries to adapt themselves to the new tools and ideas, without many more to distract them. The result was a thorough assimilation of wheat and horses into their scheme of life without much disturbance, either economic or social. Wheat had to be raised in small quantities, due to water conditions and did not lead to commercial production. Cattle, until recently, were also owned in small quantities, just enough, in fact, to substitute for the man's occupation of hunting, which was interfered with by the gradual population of the surrounding area.

The Papago became acquainted, in the Spanish period, with the Mexican house of wattle and daub and with the full clothing recommended by the Fathers. But these things were of no use to a wandering people in a hot country. It was not until much later, when their frequent contacts with Whites made houses and clothes a matter of prestige, that the Papago built and dressed in the Mexican style.

They took from Mexico two social institutions, the whipping post and the governor. There is some room for doubt as to whether the governor's office was new but his powers certainly were. We must lay their effectiveness to the priests rather than to the distant Spanish officials, for the priests were empowered by law to supervise the governor's election and his activities. It was the priests who gave the Papago their wheat and cattle and thus gained respect for the powerful charms recited in church to bring blessing. The Papago were used to ceremonial leaders and easily accepted dictation from these who had a more wonder-working ritual than their own.

But once appointed, the governors had little supervision and they and the whipping posts lapsed into a Papago pattern. Whipping was done in an informal and neighborly manner and as much for Papago ceremonial offenses as for those against Spanish law. The governor's function became so like that of the old ceremonial leader that tradition confuses the two. The organization of the extended family and the village remained untouched.

The Papago have their Apache enemies to thank for this isolation. Had the Spaniards been able to populate Pimeria as they did Sonora there would have been the same mixture of races and the same complete adoption of Spanish forms as there was to the south. The Papago, in their sterile desert, might have been neglected, but the Pima would have been overwhelmed and the influence would have spread from there. As it was, the conditions summarized above held on until Mexican independence in 1821.

The thirty years of turmoil comprised in Mexico's war of independence and the internal fighting which preceded and followed it, involved as much change for the Papago as the century preceding. There was skirmishing in Papago country; Papagos were given guns, horses and food for their help against counter revolutionists and against the Apache; Papago villages were broken up and there was racial intermixture. This affected only the south of the area, part of which is now in Mexico. But where it occurred, it was a potent factor in breaking up residence, causing the loss of clan affiliations and even of clan names and the abandonment of ceremonies because there were no longer villages to conduct them. It seems to have been at this period that the southerners began to build Mexican houses of wattle and daub. Such a house could not be burned or moved after a death and it was too valuable to abandon; so the ancient custom of moving to avoid the ghosts was allowed to lapse.

The north seems hardly to have felt the disruption whose greatest effect was to provide a yeast of people acquainted with new ways and amenable to further acculturation. Indeed, for some forty years after Mexico's independence, there was very little change. The Gadsden Purchase passed almost unnoticed by the average Papago, and an old man was recently found who still supposed he was under Mexican rule. The Americans, at first, were too occupied with subduing the Apache and organizing Arizona to pay much attention to the Desert People. They gave them some supplies and tools; a school finally became available at Phoenix though few of them went there, and there was, eventually, a small reservation at San Xavier with a farmer in charge.

But during this period the Papago themselves worked out an important change. Since 1750, more or less, one of the chief preoccupations of their lives had been fear of the Apache. It had caused their concentration in large villages and the infrequent communication of these villages with one another. It had raised to extreme importance the duties of a warrior and his consequent dreaming and song making. In fact, no man in his prime thought much of any other duties, which may have been one of the reasons for the small change in agriculture, housing and furnishing.

As the Americans took over the Apache problem, the Papago began to move out of their concentrated villages and the formation of daughter villages began. This gave larger fields and more opportunity for cattle. It did not loosen the family tie, in fact, it strengthened, it, since each village was founded by relatives. But it did loosen the village organization and the power of public opinion. It tended toward the loss of ceremonies, since the new village had no fetish and found it hard to get a ceremonial orator. I conjecture that it was this moving rather than conscious White influence which brought the first important shift in Papago culture.

But conscious White influence followed. Miners and ranchers were appropriating Papago land and, in order to protect the Indians' rights, it was necessary to establish a reservation. When the Papago came under governmental guidance in 1917, they had, perhaps, a more integrated culture than any other Indians under similar conditions. Groups in the east and northwest met the experience when they were already disintegrated by war, and removal. The Pueblos who had not suffered these disadvantages, had kept their culture by a conscious effort which, in itself colored their organization. But the Papago had suffered neither dispossession nor threats to their integrity. Theirs was what might be called an aboriginal self sufficiency.

There was no plan to interfere with such a sufficiency. Where Spain had installed the governor and the whipping post, America left Papago social organization untouched. Schools, hospitals and extension service were put into operation, missions were encouraged. Their aim was, while leaving the Papago "unspoiled and independent" to bring their standard of living up to that of the neighboring Whites. Said the Board of Indian Commissioners:[1]

> "If the tribe is helpfully aided in education, water health and livestock improvement, and subjected to the minimum of

---

[1] 50th Report, Board of Indian Commissioners, 1919.

> governmental jurisdiction, and that only of the most helpful kind, there is little question that, within a generation, the Papago Indians will be self supporting citizens of the United States and Arizona, respected by their white neighbors and a most valuable national asset."

More than a generation has passed and it is now obvious that the aid provided has involved complex changes. Raising the standard of living must mean an economy of scarcity instead of one of abundance. It must mean the substitution of investment by saving for investment by giving. It must, therefore, without wise and inventive supervision, loosen the ties of obligation which held Papago society together.

Such a process has begun and it raises the interesting question of whether a system of group responsibility evolved, like that of the Papago, over centuries of conditioning, can be carried over into a new order. Cooperation and group responsibility are ideals much talked of by Whites and hard to achieve in a society with European history. They exist among the Papago ready made but tied to an economic system that is hard to continue. The devices and adjustments by which this attitude, valuable to society could be preserved during the coming periods of disruption form a problem of the first importance to the practical sociologist.

In 1917 the difficulty was not obvious. School, hospital and extension service were started on the reservation. Missions were encouraged. Indians were helped to get horses, wagons and tools on a loan basis and were employed on the improvements at a money wage. The first problem of all seemed to be the sterility of the land and several deep wells were dug at the larger villages so that people need no longer move in the dry season.

The south, already accustomed to change and with its village organization disrupted, welcomed the improvements and the first missions were established there. Ever since, the south has provided the yeast which spread progressivism through the country. But the north was reluctant and still is. Old people, with an obscure sense of the maladjustments to come, resisted the changes and the well at one village was dug against opposition. But once the improvements were there, all made use of them.

They did so with an attitude unknown before among the Papago. Heretofore, their village had been their own creation and no improvements had been made without their efforts. Now an unknown power had placed a machine there without their consent and they felt no bonds of obligation. They do not feel them yet, and though the well serves the village as well as the school, it is sometimes in

177

danger of stopping because few villagers will give their time to run it. Nor will they buy gasoline. Communal responsibility had broken down at one point and never has been built up.

It is easy to see, after the event, that there might have been an agreement with the community before the pump was put in, establishing corporate responsibility and placing the government in the familiar role of patriarch caring for his family. But the arrival at such an agreement would have been a slow and disheartening process while the necessary improvements, which the public could understand, would seem to be sacrificed.

The improvements went forward and schools, hospital and stock supervision were instituted. In each case there was opposition, sometimes bitter and threatening, from a section of the people. There was such opposition on most reservations but with the Papago, who had never fought the Whites, it was benefits, not cruelty which aroused the first hostility and produced the resistant group now called montezumas. They are not organized, for open political opposition is foreign to Papago custom. They remain at home, spreading through their patriarchal families the emotional conviction that things should remain as they were.

They were once in the majority and it is possible they are so still. But in the south, where old ties were already slackened, there were Papago who gladly accepted the new order. In all the changes which follow, we must assume the presence of two parties, conservatives and progressives. The dividing line does not pass between old and young, as it does on so many reservations for the schools have not been operating long enough to produce a rift. It is rather between north and south, with exceptions on both sides. Neither party has knowledge enough to form any plan by which modern improvements could be fitted to ancient institutions. The conservatives reject completely; the progressives accept completely. Both inevitably take advantage of the improvements offered, both evince a lessening of the old obligations though in different degrees.

Communal duties to the village, which once took the place of a tax, have very nearly lapsed, since the government is responsible for the principle communal interests of pump, school and stock supervision. The Papago, who have never had a national organization, have still to develope their relationship to such a centralized authority. The fact that the stockman cannot get help on roundups and that parents must be organized from the beginning for school cooperation is not a proof that the Papago cannot cooperate. Rather, they are unprepared for cooperation of the sort proposed.

[619]

Family ties have not suffered so much, for as we shall mention later, the patriarchal family has amazing vitality. But the tie has loosened at a point where maintenance of unity often meant an economic strain: the responsibility for distant relatives. It had been the custom for every extended family to take care of its own dependents though the drain sometimes reduced the whole family to a low subsistence level. According to the new standard such families needed help and they could have it by giving up responsibility for old uncles and cousins, even grandparents. Many did so. When the writer first visited the reservation, applications for government charity were almost unknown but within four years they reached a point where a social worker was needed to take care of them.

The first move of a social worker, faced with a case of dependency, is generally to place some of the responsibility on the family. But the Papago honestly feel themselves poor according to the new standard. Their economy of abundance has been abandoned and with it the system of gifts. With teachers and extension workers earnestly laboring to establish the new standard, it is inevitable that the government take some of the financial burden. Here is on of the institutions of White social life seen in its very incipience. Can dependency be controlled among the Papago so that it shall not reach the proportions found among Whites?

We have considered the situation as it is affected by outright giving. But earning had its part and, in so far as they earned, the Papago themselves contributed to the demolishing of the old order. Papagos have always been workers and they eagerly accepted the paid work offered by the government and by neighboring Whites. The city of Tucson grew up at the east of the reservation and families migrated there to live on its outskirts, their women working steadily as household servants, their men intermittently as day laborers. The copper mine of Ajo developed at the west and several hundred Papago sometimes lived in its slums, supported entirely by money wages.

A temporary migration to work for pay had been an old expedient of the Papago to eke out their subsistence. Families had gone for a few weeks, individuals for a whole winter, their pay being their food while working and some knives, cloth or wheat to take home to the family. But money pay was different. It was more than enough for subsistence and the surplus could be concealed so that any one so tempted might fail to contribute at all to the family support, without detection. Individuals who got steady work detached themselves from the kin group for long periods, perhaps permanently. Young men ventured to marry as they liked, knowing

177

that they could support a wife without their fathers' aid. The family still raised food for its own support but now the store was available for bartering the surplus and investment in gifts could be given up. It was given up by some and since the others could not rely on the return which was once unquestioned, they too became slack or capricious. The gift system, built up by economic conditions, was being broken down by the same means.

Through all the stress, the institution which showed the greatest vitality was that of the patriarchal family. Though its distant dependents were lopped off, though its young people were educated to new desires at school, though some of them even seceded to wage work, a core of the family kept to the old customs. The writer has talked with many an educated young man who would make no plans without the permission of his conservative father. She has found men unable to take paying work because the family head had requested their services. The sense of security and importance derived from membership in such a group still bulks large in Papago life.

One of the reasons for the survival of patriarchal organization was that the family, in the majority of cases, kept its old lands and worked them jointly as before. Where the means of support was chiefly agriculture, change had to be slow, even with the entrance of money into the situation. Farms were not big enough to produce much money by sale of produce and there were relatives expecting to share the harvest unless actual concealment was practised. A Papago living and working in Tucson like any White, told the writer that on the farm on the reservation in which he shares the whole extended family is still invited to come and help themselves at harvest. Many of them make no return and so the farm barely supports itself.

596

But, with cattle raising, there was opportunity for further development. The Papago have had cattle since 1700 but it was only recently that they realized the possibility of raising them as a business. Beef cattle were allowed to roam wild and only hunted and killed when the family needed meat. As the country was settled and the deer and antelope frightened off, cattle raising moved gradually into the place once occupied by hunting. A patriarchal family had formerly had, in all its component households, no more than one or two hunters, bringing in ten or fifteen deer a year. Now such a family might kill the same number of cows, distributing the meat just as they once distributed venison. One or more of their young men was designated as cowboy while the others did his share of the farmwork and bought his clothes. The cattle ran on the vaguely designated range which had once been the old hunting range and the unpaid local stockman who worked under the government stockman was, in one case, the hereditary hunt chief.

It was at the south, were village organization had been broken up and where Mexican cattle ranches served as patterns, that families first began raising and keeping cattle. It was a business in the Papago manner, the patriarch at the head and the cattle of all his family herded together, his relatives acting as cowboys. Now there are six establishments, mostly in the south, which merit the term of cattle ranches and their patriarchal heads are powerful persons, whose neighbors give them a feudal obedience.

How did two or three Papago accumulate a herd and build large ranch houses with wells and gardens, while the majority were barely self supporting? The answer given the writer was: "They took care of their cows, sold them and bought more." In other words, they made the change from investment by gift exchange to investment by saving. Land is open to all. Any one may build a large house, fence off a garden and dig a reservoir. But the adjustment needed is too great to appeal to the majority who watch mistrustfully while the minority become capitalists. It is the very beginning of the process among a people who once discouraged all individual prominence.

During these changes affecting individual attitudes, the forms of village government remained ostensibly the same. The nightly meeting of the council, the only source of news and companionship while the Apache kept the Papago beleaguered, has long been a thing of the past. But the council still meets for business purposes, it still comes to a unanimous decision and the young men still feel that until the opinion of the old men has been announced no action can be taken. But there is not time, now, for the long deliberations which once produced unanimity. The White government makes proposals which require quick decision, the governors are called to the agency to hear them and, on returning, they dictate to their constituents rather than consult them. As a result, the governor's power has developed tremendously.

The authority which he holds was obvious when the Papago were asked to elect delegates to decide on a constitution under the Indian Reorganization act. The Pima, much longer under White influence than the Papago, elected, under such circumstances, their young English speaking men, discarding the older ones unacquainted with the situation. But trusting the young men is contrary to all tradition and the Papago have not reached such a point of change. They elected the elderly governors and, as a consequence, the whole tone of their constitution and of their government is likely to have a different tinge. 177

But a new economic change is likely to affect the village profoundly. In 1933 Emergency Conservation funds were alotted for the crying economic problem of the reservation — the development of a water supply. In the next two years wells, pumps, and reservoirs were installed wherever it was possible. This means that the yearly migration to the hills which has been such a determining factor in Papago life, is no longer necessary. People who live the year round in one village will build better houses and have more furniture. It will be more worth while for the government to build them a good school and for them to help with it. Many who used to camp for the winter with another group, will now have an undivided allegiance. The village should gain in membership and in importance.

Before these pages go to press, further developments will already have taken place. The new constitution will be in operation and the establishment of the Papago as commercial cattle raisers will be in process. Organization in local family groups whose frugal subsistence was dependent on the unity of all the members must gradually give way to institutions contingent on the new economy. Investment in goodwill must yield to investment in goods and, therefore, must produce the financial superiority of some over others. 178

Those men least in accord with the old order, that is, those with unfulfilled personal ambitions, will be the first to drop the code of humility and generosity and to start on the road to success open for the aggressive individual.

Such men have appeared already and the attitude shown toward them is an interesting variant of that shown toward those who had animal guardians by those who had none. The favor of an animal guardian was, under the old order, the one road to individual success but it came by chance, not by planned industry. Of several youths who were industrious and good runners, the Hawk would appear only to one "because he liked his ways". We may assume this phrasing in terms of the supernatural to have been the outlet provided for the ambitious and active man not content to be a member of the working group. But it applied only to a few. The majority looked up to the favored individual and accepted his gifts, without hope of emulation.

This attitude often carries over toward individuals who achieve economic success. The majority, without the pattern of rivalry current in a White society, tend to regard them, with resignation, as people successful by supernatural means. If kinsmen, they expect

THE AUTOBIOGRAPHY OF A PAPAGO WOMAN

FOREWORD

THE Papago Indians live on three reservations in the southwest corner [657]
of Arizona, near the Mexican border. They belong to the Piman- 101
Sonoran language group and are, in language and descent, identical with 197
the Pima whom they call River People, while they themselves are Desert 131
People. Both were found by the Spaniards in the country they now occupy, which extends from the Gila River in Arizona to the Altar River in Sonora, and which once constituted the ancient Spanish province of Upper Pimeria.

The first important contact of the Whites with Pimeria was at the end 797
of the seventeenth century when the famous missionary, explorer, and 177 ●
business executive, Father Kino established his chain of missions in the 175
Altar Valley. He made a few extensions into the present Arizona, notably at San Xavier, near the present Tucson, and he also toured the whole of Pimeria, not once but many times, distributing cattle and seeds, and baptizing the people with Spanish names. It was in his day that the Papago learned to spend the rainless and hungry winters at the pleasant Altar missions, learning the eighteenth century Spanish methods of farming, which some of them practise to this day.

But the desert country did not attract Spanish colonization. After Kino's time, such Spanish traits as reached the Papago were adopted after their yearly visits to Mexico, rather than forced on them by close contact.
Pimeria adhered technically to the Spanish colonial system by which the [636]
head man of each village was elected by the people and confirmed in office by the provincial governor. But the lieutenant governor, the sheriff, and the church officers who should have completed the picture, were nonexistent. Church services were a form, continued side by side with the ancient ceremonies which persisted with a vitality impossible in the subjugated provinces of Mexico.

This condition of slow acculturation persisted until the Gadsden pur- 177
chase in 1853. With this change, Pimeria was cut violently in two, the new 195
international boundary running through its lower portion, the home of the Papago, and leaving half of them in the United States and half in Mexico. It was to Mexico that the Papago felt allegiance, for their desert country was still forbidding to both miners and ranchers, and they were left to follow their old customs almost unmolested. Not so with the Pima. Their fertile land, along the Gila, was directly in the track of the gold rush, the trappers, and the Apache fighters. The Pima supplied all these travellers with grain, and early established a relationship which made for swift acculturation not to Mexican standards but to American.

177 124 The essential differentiation between Papago and Pima, which is now so obvious, began at this time. The Pima adopted American names and American clothing, and by 1871 had an American school. Meantime the Papago, when they spoke any language at all but their own, spoke Spanish, wore mantillas, and regarded the Altar Valley as their source of culture. More important still, the Pima gave up most of their ancient ceremonies while the Papago continued theirs.

[648] Among the most important had been the ceremonies for war. The marauding Apache, in the hills to the east of Pimeria, had provided constant persecution since Kino's time, but in 1887 they were subdued by the United States, with the help of both Pima and Papago.

[721] 177 771 After this, scalps were no longer taken, and the important ceremonies of the warpath, of victory, and of warrior's purification were abandoned. But, until the present generation, the Papago continued their intervillage games with the accompanying dances, their cleansing ceremony for food, and their driving away of evil. Even yet, the northern part of the reservation ferments liquor from the giant cactus fruit and drinks it ritually as a magic to saturate the earth with rain. The shamans still practise, and the lay curers dream songs which give each one power over some particular disease sent by a particular animal. Other power can still be obtained, if not from scalps, then at least by the killing of an eagle or the ritual fetching of salt from the Gulf of California. Most of these ceremonies, as they occurred some fifty years ago, are described in the succeeding pages.

115 [114] The writer made a series of ethnological studies among the Papago under the auspices of Columbia University, covering the periods June to October 1931, February to October 1933, November to January 1934, and October to November 1935, much of the work being financed by the Columbia University Council of the Social Sciences. During most of this time the narrator of the following autobiography, Maria Chona, acted as informant, hostess, guide, and means of introduction to the various villages, in most of which she had relatives or descendants.

Chona is a corruption of the Spanish name Encarnacion, with which the old woman had been baptized on a childhood trip to Mexico. She was the daughter of a prominent leader, José María, nicknamed Con Quien, the name of a Spanish card game. Since the words themselves would have little significance, the nickname has been translated hereafter as "The Gambler." Chona was inordinately proud of this father who had been appointed village chief or "governor" when the Papago first came under American supervision. The Papago custom in most ancient times had been to have a ceremonial leader who performed a few executive functions, but x 159 844 I did not know just when the time would be, but I knew that I felt pain when I stooped out of our little door. I said to my husband's aunt: "I think I will go to the Little House. I would not like such a dreadful thing to happen as for me to be caught inside the house in childbirth." "Well, go," she said. This was the first I had said to her or to my mother-in-law either, the whole thing being so new.

There was a gully behind our house and the Little House was on the other side of it. When I reached the near edge of that gully, I thought I had better run. I ran fast; I wanted to do the right thing. But I dropped my first baby in the middle of the gully. My aunt came and snipped the baby's navel string with her long finger nail. Then we went on to the Little House. My sisters-in-law said to me afterward: "Why didn't you tell us? We didn't know you were suffering in there. We heard you laughing." I said: "Well, it wasn't my mouth that hurt. It was my middle."

I stayed in the Little House, for that was what my father had told me to do. "When you have your first baby, don't come into the house. Stay out until the moon comes around again. Then go to the medicine man and be cleansed."

x 159 846 So I stayed alone there for a month, and the family brought me raw food, which I cooked. I ate no salt until the end of the baby's navel string fell off, so his navel would not be sore. Then my husband and I and the baby
[263] went to the medicine man, and he gave us all white clay to eat as he had
177 given me when I became a maiden. But he did not give my baby a name.
553] We were modern and I let a priest name him, Bastian.

x 159 596 It was nice in our house. My young brothers-in-law had married and I had their two wives to keep me company. Feather Leaves was one, and Singing Dawn. We girls did the cooking for my mother-in-law and left her to her baskets. At night when we ladled the gruel out of the pot, we all ate two and two, each married couple with one bowl, drinking by turns.

My mother-in-law managed our work. "Come," she would say, "get your carrying baskets. Let us go for food."

[854] So we would go laughing out over the flat land to dig the roots or up in the hills to cut the cholla. I carried my baby in its cradle board on top of the carrying net. While we picked into a smaller basket, I leaned the carrying net against a tree and balanced the baby on top.

x 159 987 Once I was digging roots like that and I got very tired. I made a pile of earth with my digging stick, put my head on it and lay down. In front of me was a hole in the earth made by the rains, and there hung a gray spider, going up and down, up and down, on its long thread. I began to go to sleep and I said to it: "Won't you fall?"

x
159 I took my little girl with me when we went to dance and sing for the River People. Every year or two we went, we three or four villages that were relatives.

Once we went to The Spring, and Begging for Yucca Fruit made the
songs. Then we went to Sacaton and my father made them. The River
People came to us, too, and we all went and camped at the village where
they were to sing. They sang at Mesquite Root, my father's village, and
[20] he put into the singer's hands cow manure and horse manure. That meant
he would give them a cow and a horse. Then we went to the Narrow Place
and held a great harvest festival, and my husband was one of the singers.
A good time we had, roaming over the land.

x
159 Once, when my husband and I were away working, word came that
763 my father was sick. All the family came back to Mesquite Root, but the medicine man could not help him. We all began to cry, right then: "Haya, my father!" "Haya, my elder brother!" "Haya, my husband!" It is a sort of tune. We cried all night, but he died.

x
159 We did not bury him in a cave in the rocks as our people used to do.
●177 We had been up and down to Mexico, and had seen the priests and learned
764 many things. We laid him down and dug a grave. We dressed him in clothes, a good shirt and trousers and sandals and a red headband around his hair. We gave him a blanket and pillow, too, for the grave. Because he was an Enemy Slayer his face was painted, black to the nose and white below. His younger brother did that, for he was an Enemy Slayer, too, and had the right.

All the men of our family dug the grave, and then carried him out and put him there. They put in his blanket and pillow, because we did not sleep on mats any more. And his leather pouch, they put in, and the sticks he had for games and his bow and arrows and his good quiver of wild cat skin. Then his brother spoke: "We put you here. Stay and don't come back to frighten us." My mother said: "Make yourself at home. Be happy. Don't come back to break up my good dreams." She was crying. Then we called him again. "Haya, my father!" "Haya, my elder brother!" "Haya, my husband!"

x
159 All the relatives called him. After that, we never said his name, José
561 María. When we talked about him we said my father-gone, my elder brother-gone, my husband-gone. To hear the name would make us feel too bad. And nobody ever said that name to us because my brothers would get angry.

x
159 We divided his horses, and my sister and I each got two. My brothers
768 and my mother got more. My brothers took the house down and moved

PEOPLE ON THE DESERT

197 631 The two largest Indian villages are in the central and southeastern sections of the Reservation—Topawa in Baboquivari and Gu Achi (Santa Rosa) in the Gu Achi District.

657 Unlike most Indian tribes in the United States, the Papago have rather recently come under the jurisdiction of the Bureau of Indian Affairs, United States Department of the Interior; the main reservation (the last large one established) dates only from 1917. The local government agency at Sells on the Papago Reservation is also responsible for the San Xavier and Gila Bend reservations.

The Reservation population includes about fifty white government employees and their families, chiefly concentrated at Sells. Scattered over the Reservation are other white people—teachers in the schools under government or religious auspices, other members of the government and mission staffs, traders, and a few miners.

177 The Papago live on the land, as they have for centuries, by farming small fields and raising livestock, but in recent years they have depended increasingly on wage work on near-by ranches and farms and in mines as well as on employment by the government. Thus an alien culture is entering into their way of life—a culture that has already made a deep impression on the Desert People.

142 As a group the Papago do not much resemble the stereotype which the word "Indian" brings to the minds of most white people: tall gaunt men in eagle-feather headdresses and blanketed women carrying babies on their backs. Though most Papago are rather tall, have large shoulders and chests, and are inclined toward obesity,[2] some are small and slender, and others are of medium build. In all there is a delicacy of feet and hands which suggests small bones. Typical Papago have wide faces with rather heavy features; slanted eyes and long-lobed ears are common. They have dark-brown eyes and straight black hair. Many are dark-skinned, but much of this coloring is due to life in the sun; when a man rolls up his sleeves, one usually sees arms that are a soft yellowish brown.

144 Among the Desert People there are few extreme variations of physical type such as may be observed on reservations like the Sioux, where an Indian may have flaxen hair and blue eyes. Less than one-tenth of 1 per cent of those on the tribal roll are "Papago-American," i.e., have white blood. But there is some Yaqui and other Indian blood among the Papago, and in recent years a few young Papago have married members of other Indian tribes they met at off-Reservation boarding schools.

---

[2] See Norman Gabel, "A Comparative Racial Study of the Papago" (MS).

PEOPLE ON THE DESERT

Like many other Indians, the Papago are a young people. About 40 per cent 162
of those living on the three reservations in 1942 were under eighteen years of age. The average age of males was twenty-three years and of females twenty-one.[3]

Costumes are not so colorful as those of some Arizona and New Mexico 291
tribes such as the Navaho. Most of the older women wear the ankle-length
Mother Hubbard cotton dress with loose blouse used by many older Indian 177
and Mexican women in the Southwest and in Sonora. With this they wear a shawl or *rebozo* usually wrapped tightly around the head with an end hanging down the back, rather than loosely draped and allowed to fall over the shoulders. Younger women and girls wear cotton or rayon dresses in contemporary American style. Fiesta dresses are more colorful, and one occasionally sees the brilliant rayons which added splashes of color to gatherings in former years. Males from the age of one to one hundred wear denim or khaki pants with shirts of cotton for work and bright rayon for festive occasions, kerchiefs about the neck, with brimmed felt hats, and cowboy boots if they can possibly afford them. Some of the educated men have American-style "business suits" for trips off the Reservation. Good clothes, particularly shoes, are bought when there is cash on hand, and a man may spend considerable sums on hats and boots. Even in the conservative western districts of the Reservation, the people buy American clothing, often quite "fancy," for the children and young people. Papago believe clothing should be neat, clean, and modest but not necessarily sober; they all want to "look nice" before other people.

Typically the Papago move with a slow dignity and grace, and only in near- 157
emergency situations does the word "hurry" have any meaning for them. 516
A rider who runs his horse when he is not roping or running cattle is almost certain to elicit the comment, "Oh, he's drunk."

From early childhood the Papago is taught to be quiet, self-contained, and 867
not to become angry. A reserved person whose equanimity is difficult to shake, 195
he expresses opposition or resentment quietly, for he believes in discussion without argument and angry words. He does not ask direct questions or make statements directly; a question is asked through a circumlocution, and answers are given in the same manner. To white people it sometimes sounds like speech in parables, but to a Papago the meaning is perfectly clear. The curiosity
of white people often causes difficulty between them and the Indians. Question- [522]
ing about unimportant things the Papago regard as rather humorous, but 576
queries about their personal affairs seem to them extremely bad taste.

---

[3] Population data from United States Bureau of Indian Affairs, *Program, Papago Indian Reservation, Arizona*; see also chaps. v and vii below.

oak country to gather acorns. In August another variety of wild greens was ready to eat, and, finally, in September the prickly pear ripened. 222

Without domesticated animals, the Desert People depended on wild life for their meat, which they dried and stored or ate fresh. All through the year the hunters went out after bighorn sheep, deer, peccary, and rabbits. 224

This was a way of life in which everyone had to work in order to eat. Someone had to sow the seed or protect the crops while others were gathering wild plants, and, while some of the family were gathering acorns or saguaro fruit, others might be off hunting. And always there was the work at preparing food for eating or storage, making clothes and utensils, and the general business of keeping a family going; small wonder that industry was thought of as a cardinal virtue, for the lazy man would starve and bring others to the verge of starvation. Nor is it surprising that families were strongly cohesive, that they included people other than father, mother, and children, or that babies were welcomed. The more hands, the more co-operative work, the more food. We shall see later that these values remain powerful factors in Papago society today. 461

FIRST WHITE INFLUENCES ON PAPAGO TECHNOLOGY

When Father Kino came up from Mexico in 1700, he brought cattle and horses, oxen and wooden plows, wheat, peas, lentils, and *garbanzos.* These the Papago accepted according to their own pattern. It is possible that they simply turned the cattle loose and hunted them much as they had always hunted deer.[1] At any rate, for years there were semiwild cattle in the southern and eastern parts of what is now the Papago Reservation. The wheat and legumes fitted more naturally into the Papago pattern. They were planted in winter in the same fields used in summer for corn, so that there were now two growing seasons instead of one, which somewhat regularized the food supply. 177

Horses were very useful, easing the difficulty of the semiannual treks from mountain to valley and return and shortening the traveling time between villages. However, like many other tribes, the Papago attached to the horse a value quite out of proportion to its usefulness, and ownership of horses became a source of prestige. Horses and cattle were individually owned, in contrast to land, to which an individual had a right only while he was using it. 231 422

---

[1] Ruth Underhill, "Acculturation at the Papago Village of Santa Rosa," p. 12. In contrast, a group of Indians in northern Mexico closely related to the Papago, who were completely "missionized," used white methods of handling stock; yet they violently resisted white encroachments, even to the point of bloody revolt.

231 422 Thus the concept of individual ownership began to infiltrate established concepts of use-ownership by the group.

231 177 Horses also made possible further contacts with white ways. When crops failed in Papaguería, the Papago of the southern villages often rode down into Mexico to work for ranchers. There they learned something of white methods of livestock care but, more important, were introduced to the idea of working for pay. Payment was always in kind—seed, knives, or other necessities—but the situation was quite different from co-operative labor for group subsistence. People in the northern villages who worked for the Pima Indians, whose irrigated fields produced plentiful harvests, were paid in grain.

177 Thus, well into the twentieth century, Papago ways of making a living remained fundamentally unchanged. The Desert People became familiar with the white man's use of domesticated animals, his grains, and his traditions of individual ownership and paid labor; but these things did not violently disturb their way of life. Papago life went on, little changed from its course during the last three hundred years.

THE RESERVATION ECONOMY

177 With the establishment of the Reservation in 1917, and particularly with the change in Indian Service policy in 1933, the shape of things began to change in Papaguería. In the shift from an economy of only semisedentary farming with a few half-wild cattle to one of agriculture, livestock, and wage labor, the government has played a leading role.

The improvements necessary for this shift have been made or supervised by the Indian Resources Branch of the Agency staff, consisting of the Soil and Moisture Control, Forestry and Grazing, and Extension departments, and by the Engineering Branch, including Roads, Irrigation, and Construction and Maintenance departments. Their job is to show the Papago how to utilize his own limited resources most efficiently and to assist him in developing new ones.

177 491 The building and improvement of roads and trails have been important contributions to Reservation economy. From 1933 until 1943, seventy miles of primary road and forty miles of secondary road have been constructed by the Roads Division. The CCC constructed nearly two hundred miles of truck trails. But, according to Agency estimates, less than half of the needed roads have been built, and thirteen of the thirty-six villages of more than fifty inhabitants have no roads.

177 312 To improve the water resources of the Reservation, the government drilled deep wells at many villages, thus assuring a year-round water supply and

making unnecessary migrations between valley and mountains. *Charcos* were 177
built or improved, small dams erected in water courses, and other improve- 312
ments made in water conservation, under the supervision of both the Engineering and the Resources branches.

In this arid country without year-round streams, large-scale irrigation must come from deep wells; this is possible in only very limited areas on the San Xavier Reservation and at Chuichu at the northern tip of the main Reservation. There is some use of *"bolsas,"* diked fields to which water is brought from washes or arroyos by ditch and allowed to stand and seep into the soil, thus insuring moisture for a crop, but most Papago families have flash-flood farms much like those in use for centuries, watered naturally by the spreading floods. To others water is conducted through ditches;[2] at Menager's Dam in the southwestern corner of the main Reservation sixty acres are now under ditch irrigation.

Perhaps the most important departure from old ways of making a living 231
came through efforts of the government to make livestock the basis of the 177
Reservation economy. The improvement of the water supply was intended to be the first step in this direction. Papago methods of handling (including those learned from early government officials) had greatly depleted a range that was originally poor. Up to about 1930 range use was irregular, and cattle moved from water hole to water hole, overgrazing the surrounding areas.[3] This overgrazing caused the disappearance of perennial grasses and their replacement by growths that offer poorer forage and do not hold the soil, thus starting serious erosion.

The Resources Branch has set up experimental farms and nurseries to determine the usefulness of various grasses and plants for this area. By such experiments it is hoped to develop plants that will hold the soil and provide good forage.

The effects of spotty range use were aggravated by the fact that the Papago ran far too many livestock. Even as late as 1943, with the more general use of the range resulting from a better water supply and despite a considerable reduction in stock, the number of animals being run on the Papago range was about twice its carrying capacity as estimated in 1939. Many of these animals were horses of negligible value.

The Tribal Council, which has seen the necessity for better and fewer

---

[2] In line with Carter's terminology, the former method is "arroyo flood farming." The use of ditches is "arroyo flood irrigation" (see George F. Carter, *Plant Geography and Culture History in the American Southwest*, p. 114).

[3] Data in this section are largely from United States Bureau of Indian Affairs, *Program, Papago Reservations, Arizona*, referred to subsequently by title only.

[text continues on p. 33—Analyst]

animals if income is to be raised and the range preserved, has been firm in 231
insisting that the number of horses on the range should be governed by the 177
need for them. In the face of much opposition and with the aid of jail sentence for noncompliance, they have seen to it that horses afflicted in a recent epidemic of dourine were killed and a strict quarantine maintained.

Furthermore, many of the flash-flood farms are now endangered by siltation resulting from soil erosion due to overgrazing of range lands. Hence stock reduction and the introduction of better grasses will help even those families which have no stock.

The Extension Department has been of great assistance to the Papago in improving their fields and herds. The latter has not been and will not be an easy task, for to the Desert People cattle are not a source of prestige. Cattle provide food and spot cash, but there is yet little of the attitude of making a paying business of cattle production. Furthermore, the Department will meet with at least tacit opposition for a long time, since white men's methods sometimes run counter to the old beliefs. Many Papago, for instance, think that their range is in poor condition, not because they have too many animals or because of prolonged droughts, but because so many horses have been killed off
in recent years. The horse is endowed with magic powers, and the white men [825]
are only asking for trouble when they slaughter sick animals. Only long and patient education—of adults in the villages and of children in the schools—can dispel superstition. The Agency is well aware of these difficulties, and the staff has made conscientious efforts to explain and to persuade, rather than to compel, progress.

Though the quality of Papago cattle is still in need of improvement, standards have risen measurably in the past decade. Until 1930 the steer with the largest horns was considered the best; and as late as 1937 skinny Spanish cows with a horn spread of several yards, looking like great gaunt deer, still peered from mesquite thickets. Today Hereford cattle constitute most of the herds, and under the tutelage of the Agency the Council has established a tribal herd of registered bulls which individual owners may use to improve the breed.

Cattle is the largest single source of revenue, providing 36 per cent of Reser- 434
vation income in 1940 (the last year before war wages and prices began to dis- 231
tort the normal picture), but agriculture is still the backbone of the Papago 241
economy. Over half the twelve hundred Papago families do not own any cattle at all, and only a sixth obtain more than fifty dollars from this source in a normal year. On the other hand, almost all families do some farming. The estimated cash value of the products is small and forms only a sixth of

[Text continues on p. 35-Analyst]

Pate" (both names bestowed on white people) reflect physical character- 551
istics. Nicknames are commodities after a fashion, for they may be bought or [424]
traded.

When a Papago is addressed directly, neither the name given him by a [576]
medicine man nor his nickname is used. If the speaker is not a relative, he
addresses another Papago by his English or Spanish name or by the Papago 177
term for "friend." Spanish names were given to the Indians by the first mis- 551
sionary priests; they were all saints' names, and no surnames were added. As white men dealt increasingly with the Papago, they found it difficult to distinguish the many Joses, Juans, and Franciscos; so they introduced the Desert People to the system of taking the father's name. Frequently the Indians used the father's given name as a surname; thus a father, son, and grandson might be Jose Juan, Pablo Jose, and Cesario Pablo, respectively. Not all siblings, however, would necessarily take the father's name; five brothers might have five different surnames. Wives might take the husband's surname or retain their own. Whites were further confused by the ease with which Indians changed their names; Juan Francisco might suddenly become Chico Jose.

When the English-speaking white traders and government employees began to record these Spanish names, they were misled by the Papago pronunciation or by their own lack of acquaintance with Spanish into misspelling or anglicizing them. Thus Moristo has become "Molisto," and Averisto is alternatively spelled "Valisto"; Xavier is written "Havier" or is changed to "Harvey" or "Harris"; Candelaria may be "Condolorey." One well-known surname, Puella, is a white teacher's spelling of a Papago child's pronunciation of his name, Pedro Maria—"Pedlo Malia."

Although census records, school rolls, and registration for rationing and Selective Service have influenced Papago to keep the same name, some confusion remains because there is still a rather strong sanction against uttering names unnecessarily, particularly as terms of address. When addressed by name, many adults will answer with manifest annoyance if at all, and even a child who has been in school for some years will show embarrassment. English-speaking Papago seldom address a white person by name; they prefer "you." But, if a name must be used, it is always the surname with "Mr.," "Mrs.," or "Miss." The formal address is also used with certain Papago in positions commanding respect but never when a kin term might be substituted.

Thus the system of appellation so well defined in white culture is in a tran- 551
sitional stage among the Desert People. The old medicine men's names are dying out, and inheritance of surnames is gradually becoming common. But

and singing, as it does in the wine ceremony, not cruelty and fighting. Women 733
say that they sometimes talk to their husbands but that "they don't pay any
attention." Others simply leave home until their husbands sober up. Religious
sanctions lessen drunkenness among the Presbyterians, but the group is small.

The Papago lay part of the blame on the federal law which forbids the sale 733
of liquor to Indians; they say that forbidding the possession of something is a 177
challenge. Whether or not this contention is justified, the real difficulty with
drunkenness has coincided with the period of accelerated acculturation and
particularly with the transfer from a barter to a cash economy. Illicit liquor
is easily acquired when one has money, and with the prevalence of wage work
almost every Papago man has cash. Possibly the speed of acculturation has
brought with it conflicts and maladjustment for which compensation is
sought in drinking. The disappearance of the old village games and races,
which used up much surplus energy and sometimes required arduous training,
may also have brought about recourse to other forms of stimulation and
excitement. The problem remains difficult and pressing, for no adequate solution has been found.

CURING SICKNESS AND COUNTERACTING MISFORTUNE

In an environment which requires constant and hard labor, sickness might 753
well be one of the most dreaded misfortunes. This attitude has probably been
reinforced by the grave health problems of the Papapo (see chap. vii).

The Desert People believe that sickness and other misfortunes come from offending one of the many supernatural forces which menace humans. From early childhood they are taught what to do and what not to do in order to maintain the right relationships with these forces.

Certain rites must be performed for every individual: if a baby is not taken to a medicine man a month or so after birth, he may fall sick or die. If he does undergo the proper rite (see chap. viii), he will be healthy, a good worker, and a swift runner. The girl who does not consult the medicine man at her first menstruation may be consumed by fire and may bring misfortune to all her relatives (see chap. x). Even some of the Presbyterian Papago feel uneasy unless this ceremony is performed.

Dead persons are potential threats to health and good fortune, and care is 153
taken to avoid offending them lest their ghosts return to bring sickness upon 761
their living relations. Until about thirty years ago, the Papago buried their
dead in little stone replicas of houses on a hill near each village. Personal 764
property was buried with the corpse—a man's saddles and bridle, his tools and
clothing, and any ceremonial paraphernalia he might have; the baskets a

DIVERSE CREEDS

THE OLD AND THE NEW

All the Sonora Catholics adhere to aboriginal beliefs. *Santos* are buried 771
with the dead as food and clothing were in the old days. San Francisco and 177
the rain spirits, Spanish prayers and the medicine man's eagle feather, 789
are believed equally efficacious in bringing rain. During one severe drought, a medicine man decided that the cause lay in the inadequate care of *santos* which had been interred when their owner had died. So the medicine man directed certain women to retrieve the sacred pictures and bring them to the church, where a circle dance would be held. As the women were returning with the *santos*, a great storm broke. Thenceforth, these *santos* were kept in a shrine; they are pictures of San Francisco.

At another place on the Reservation, the women sought to end a drought by walking through the fields with their *santos* and singing Spanish hymns. This they did for four days. The rain came on the fourth day.

Thus the old and the new exist side by side or are inextricably blended. The Papago uses every means at his disposal to bring rain; he summons every power for good of which he knows to bring good luck and good health. Perhaps one or another of these powers is responsible; it does not matter, for the Papago has done what he could.

ROMAN CATHOLICISM

When the Franciscans renewed Catholic missionary activities among the 797
Papago early in the twentieth century, most of the Indians were Sonora Catho- 794
lics. To the priests these people were hardly Catholics at all; their faith, the priests said, was a "religion of externals," of whose real meaning they were unaware.

In the southeastern, central, and extreme northern parts of the Reservation the Franciscans began to teach the Roman creed, to introduce the Mass and other sacraments, and to make the Papago "good Catholics." At about twenty villages there are now Roman Catholic churches (see Map I), and many Papago have been baptized, attend Mass, and send their children to one of the five mission schools on the main Reservation.

In the western districts the Franciscans have made little headway, and most of the people remain Sonora Catholics. Here the first converts were made about 1929, when a few children were baptized, and in the following years priests came now and then to draw more of the people into the fold. Some of the converts, however, reverted to the Sonora faith after a difference with the priests, who have since referred to them with grave disapproval as "Montezumas." In 1941 one Franciscan began to make regular trips to the west to

794 celebrate Mass for the remaining Roman Catholic families, but no permanent
797 mission or school has ever been set up.

To the casual observer the Roman Catholic Papago appear not very different from their Sonora Catholic neighbors. Obvious differences are that the Roman Catholics go to Mass, are sometimes married in the church, and know some Latin prayers and songs. They try to have their children baptized and often send them to the mission schools.

Roman Catholic fiestas are like the Sonoran, except that the priest approves the day and puts in an appearance. The priests have discouraged the annual pilgrimage to Magdalena, but some Roman Catholic families still go. They also observe the year of mourning and set out their tables for the dead on All Souls' Day. They too seek supernatural aid in bringing rain, and Masses are sometimes said for this purpose.

Personal relations between members of the two groups are undisturbed by differences in belief. Roman Catholic parents may wish to have Sonora Catholic friends as godparents for their children.[12] Since the Roman church requires that the sponsors themselves be persons who have been baptized, the ceremony cannot be performed by a priest, but many parents are untroubled by this situation and quite content to have the godparents apply the holy water. Others have a Roman Catholic couple as sponsors and ask Sonora Catholic friends to officiate at a second ceremony. This easy adaptation of a foreign institution
[177] to suit their own circumstances is characteristic of the Papago.

Like the Sonorans, the Roman Catholics combine the old religion with the new. As has been previously pointed out, the priests have been less concerned with wiping out the old religion than have the Protestant missionaries, but they try to wean their people away from these "superstitions." One priest compares them with the belief in banshees and leprechauns, which, however, are real beings to many devout Catholics of Ireland. The mission schools taught by the Sisters of St. Francis have been important in spreading Roman Catholic doctrine and in combating the old beliefs by raising doubts in the students' minds.[13] Some "good Catholics" go to the wine ceremonies. Most consult the medicine men, and a few are themselves medicine men or singers.

794 However, the priests are not so tolerant of other magical practices. Recently
797 a non-Papago faith healer came to Topawa, claiming to perform miracles of
756 healing. Hundreds of the Papago flocked to camp near her headquarters and
waited several days for an audience. Papago informants, attributing to the

---

[12] The reader will recall from chapter iv that the godparents are a part of the extended family and have social as well as religious functions.

[13] Other aspects of these schools are discussed in the following chapter.

856 by getting the child to take a few steps, and every mother is delighted when her baby starts walking. She beams with pride when she can get the baby to demonstrate the new accomplishment and rewards him with smiles, caresses, and loving words. On the other hand, not much concern is shown if a child seems to be slow in walking, and he is not shamed by his relatives.

Similarly, when he learns to talk is largely determined by the child's own development. The mother usually denies teaching the baby and says that he learned by imitation, though she may coax him by saying a few words and reward him with caresses if he succeeds in imitating her. Children begin efforts at speech at about twenty-two months; by two and a half years they are able to make most of their wants known verbally.

195 All Papago use baby talk in addressing a child until he is about five. There-
854 after he is supposed to enunciate clearly and is embarrassed when adults tease him by addressing him in baby language.

863 Cleanliness training is delayed until the child can walk and understand instruction. The infant wears diapers most of the time, and children up to about two and a half years always wear them in public. However, at home the older baby is frequently dressed only in a shirt. Urination in the yard, or even on the dirt floor of the house, is considered no misdemeanor in one so young. When he is about twenty months old, or earlier if he can walk easily, the mother begins taking him into the bushes away from the house and telling him to urinate there. His older brothers and sisters are instructed to take him with them when they go to the bushes, and he learns largely by imitation. He soon becomes aware of the extreme modesty of his relatives during elimination, and by the time he is three and a half or four years old he knows that he is supposed to go to the bushes with members of his own sex.

Mothers say that they do not have much difficulty with cleanliness training. By the time it is begun, the child is old enough to understand directions and to want to imitate his older playmates, and so he learns quickly. That he is perhaps three years old at the time is no cause for concern from the Papago point of view. If the child soils himself or his clothes after this time, his mother will make a face and utter a disagreeable sound, saying "dirty" or "nasty." She tells him that he is dirty and that he must not do that here, and sometimes she warns him that the animals or ghosts will get him.

863 The white woman trader in the West reports that she has seen mothers try
177 to make children of two and a half or three clean up their feces after they had an accident in the store. The women would scold and threaten all the time and then thoroughly wash the children under an outdoor faucet. Since this treatment was not observed in the home, and no mother mentioned having used

it, the method may have been adopted for the occasion because the mothers know the fussiness of whites in such matters. 863 177

Weaning comes later for the Papago than for most white children. Unaware of her child's exact age at the time, the mother who is questioned about it is likely to laugh and say with a little embarrassment, "He was pretty big." Several instances were found in which the youngest child of a family nursed four or five years, but the older children were weaned at from eighteen to thirty months. A few mothers begin weaning at about a year, but they are a small minority; ordinarily the mother continues nursing well into the next pregnancy. 862

Several weaning methods are used. A few mothers in Baboquivari District said that they simply stopped nursing their babies and let them cry for four to fourteen days until they forgot, but elsewhere on the Reservation this was not the practice.

Mothers usually say they "just stop" nursing and that they have no particular difficulty. When a child begins fussing to nurse, the mother does not deny him straightforwardly but puts forth great effort to draw his attention elsewhere. She cajoles him into playing with his siblings or shows him a man coming on horseback or dogs fighting in the yard. Sometimes she is successful in diverting him, and, after several similar instances, the child does "just stop."

If a mother cannot wean a child by this process, she has two alternatives. She may leave the child with his grandmother for a time. If the grandmother lives in the same house, the mother goes away; if not, the child is taken to the grandmother. The weaning is not accomplished at one fell swoop; the baby is left for only a couple of hours at first and eventually overnight. His relationship with a grandmother is always cordial and going to see her is a pleasure, [603] hence this weaning method, like the preceding one, is a relatively painless one. The child seldom gives any trouble for a grandmother; he seems to forget all about nursing unless reminded by the sight of his mother.

A few women, usually those who have no mother or mother-in-law at hand to help, put chili on their breasts to discourage the nursers; one application is usually sufficient.

Weaning means that the child begins to sleep apart from his mother, for she no longer needs to nurse him during the night. In the eastern districts a crib may be provided for the baby, but the general custom on the Reservation is for the weaned child to sleep with one or more of his brothers and sisters in the same room with the parents. If there is no room in the bed with the older children, the baby may sleep with either grandparent or almost any other 866 854

it is the short distance to a neighboring house cluster, and then she is always in 562
full sight of her relatives all the way. Even in twos or threes girls are forbidden
to walk about the desert or to loiter where men are working.

In the old days marriages were arranged by families, and young people had 584
little voice in the selection of partners. The concept of romantic love has been 883
introduced by white schools, movies, and magazines, and today there is much [177]
more freedom of choice. But, as a rule, Papago girls and boys are still circum-
spect in public. Though adolescents do not play together at school, they have
more opportunities there for talking together and flirting than at home.
Eleven- and twelve-year-old boys tease the girls, trip them up, or take their
books. Older lads are more likely to start a disturbance to gain the attention and
admiration of some particular girl; they are seldom disappointed. On the other
hand, some of the girls quite openly seek to attract masculine attention by
slight misbehavior in the classroom, and they often linger on the playground
to watch the boys' ball games, a delicate attention which is not unappreciated.

At fiestas a boy will dance oftener with the girl of his choice than with the 883
other girls. Sometimes they escape into the darkness away from the dance 836
ground for lovemaking. 527

How much sexual promiscuity takes place is difficult to determine, for the 836
Papago are conscious that their standards differ from those of whites, and they
do not talk freely on the subject. Sex affairs that are intended to result in mar-
riage do not seem merely promiscuous to the Papago, and many "Indian-
custom" marriages begin in just this way, often in the cotton fields, where
chaperonage is difficult to maintain. For sex relations that are not a prelude to
marriage, boys are seldom censured, but girls are blamed for "going off in the
bushes." However, the girl seems to be less severely criticized if she gives birth [848]
to an illegitimate child; neither the child nor its mother suffers social stigma,
and the situation seems not to affect the girl's chances for marriage.

The boy who wishes to pay formal court to a girl will find excuses to visit her 584
home, ostensibly to see a male member of the family. Everyone knows why he
is there and takes great, though courteously veiled, interest in the progress of
the courtship. The girl can discourage her suitor by disappearing on the pre-
text of having a task to do elsewhere. If she likes the boy, she will remain in
the room while he is in the house; eventually he will find a way to propose, and
they will announce to their parents that they intend to marry. They begin 585
living together at once or soon afterward—usually in the household of the
groom—and, whether or not a wedding ceremony is performed, are thence-
forth regarded as man and wife. They have taken their places in the world
of adults.

153
184
In times of relaxation, of prayer for or rejoicing over good harvests and rain, vagrancy of thought going out into daydreams or songs is apparently not only permissible but respected as being close to nature and its spirit. Western Papago who are able to solve complex formal and organizational problems perform such tasks through mental activity which seems to lie outside that normally required for their daily life.

153
184
177
The eastern Papago communities, on the other hand, have been for a long time exposed to outside influences. In the old days Apache raids were comparatively frequent and demanded constant watchfulness and readiness for defense. There are now other elements that influence the eastern way of life: two Catholic missions and schools, one Presbyterian mission and school, one government school, and, only ten to twenty miles away from the several communities, the Reservation headquarters, which is also the seat of the tribal council and court. Mexico, "just across the mountains," is frequently visited. Thus, life in this area has certain more complex and formal aspects, the mastery of which stimulate mental activity beyond the simplicity of the West, into the direction of greater intellectual alertness and greater ability to differentiate and to organize complex tasks.

153
Making a decision as to the actual effects of these factors on the I.Q. of Papago children seems obviously impossible, particularly if it is to be based on the results of one test. However, the other intelligence test used in the research, the Goodenough Draw-a-Man, has given findings which to a degree support the considerations discussed above. According to this test, the average I.Q. of Eastern Papago children is 108.5, that of the western Papago 103.6 (see Table 3). The average I.Q. achieved by the Papago children of both areas on the Goodenough test is higher than that obtained by white children on whom the test was standardized (100.0) and by a group of white children from a midwestern town (101.2).

151
153
The mental capacities taken into account for the calculation of an I.Q. in the Goodenough Draw-a-Man Test are apparently different from those playing a role in the Grace Arthur test. The old fame of Indians as scouts—a fame which has repeatedly been confirmed in the recent war—indicates alertness and attention to significant details, the chief traits scored in the Goodenough test.

The following incident may illustrate the nature and degree of Papago children's gift for observation. One of the Reservation field nurses took a group of small Papago children for a few hours to the Agency seat for medical examinations. Some time later a teacher asked the children to draw pictures of the hospital. Almost all showed certain details which appeared to the teacher enter. Duties had to be done—constantly and well done—but results could be obtained only by co-operation, not by the strength or inventiveness of the individual alone. The more gifted and the uncommonly successful were looked upon with friendly appreciation or with awe as being favored by the supernatural, but they were not admired as self-made men. 153

Much of the ancient Papago culture and many of its concepts seem to be alive today; and, though numerous old traditions and customs may have broken down, it usually takes more than thirty or forty years to change a fundamental philosophy of life. Thus the children of both areas of the Papago country studied do not show the personal ambitions observed in modern white culture, and reports of their general behavior in school support the findings of the tests. However, slight traces of white influence upon eastern Papago children may be seen in their growing interest in competitive games. 153 177

There are still other signs of white influence in the eastern districts, the most important probably being the diminishing attention given to native ceremonies and fiestas which, as Table 5 shows, seems much weaker than in the western districts. Here may be seen the Papago "plasticity" to alien influences—a plasticity arising from their own loosely knit cultural forms, allowing them to take on foreign symbols without crucial difficulties and to fill them with their own spirit.

The differences between the two districts regarding happiness derived from gifts and property are consistent throughout the Emotional Response Test. The western children admit not only greater pleasure from property but also deeper concern about its loss. 153

"THE BEST THING"

These differences become more evident if we expand our inquiry beyond the area of happy experience to that of openly admitted desire. When the children were asked, "What is the best thing that could happen to you?" the testers expected the answers to give a glimpse of the needs and drives arising from actual conditions of life as they are realized by children. By limiting the request to the "best thing" and at the same time widening the area from the actual experience of the child to desires represented, felt, and seen in the whole surrounding world (including that of adults), this question may register more clearly than selective memory (as obtained with our simple, direct method) the extent and strength of various influences, including the images deriving from models, tales, and teachings.

For example, western Papago children consider property—especially money—as the "best thing" that could happen to them. It might well be in- 153 556

Chapter XIX

PAPAGO CULTURE AND WHITE

AS DISCUSSED in chapter ii, the basic life-patterns of the Papago were little influenced by white culture from the time the Spaniards first encountered them on the desert to the end of the nineteenth century. The Spaniards and Mexicans gave the Desert People domestic animals, new foods, implements, somewhat improved agricultural methods, and a glimpse of Christianity, but they left their social institutions fundamentally unchanged. 177

During the last forty years, with the establishment of permanent Christian missions in Papaguería and the creation of the Papago Reservation, the Papago have been exposed to alien forces more constant and powerful than any they had previously encountered. This pressure has not been in the form of open hostility, as was that of the Apache; it has been exerted chiefly through the introduction of new values and the more or less complete reinterpretation of values already functioning in Papago life. Most white aliens have demonstrated either openly or by implication a firm assurance that their values are the only right and decent ones, the sole ways to happiness, and are thus far superior to any which the Papago could possibly have. The Papago, though they probably cherish notions of the same kind about their own values, have been at a decided disadvantage because the white strangers are in control of the situation.

It is not surprising that, particularly during the first period of peaceful conquest by modern American civilization, the Papago showed various and changing signs of resentful hostility and resistance, on one hand, and of a more or less far-reaching acceptance, on the other. Similar signs accompanying adjustment to an alien culture may be observed in all Indian tribes studied in this project. But each group reveals its own reaction pattern, according to the differing socioeconomic organizations of the tribes, the varying strength, quality, and elaboration of their cultural values, and their diverse experiences with the encroaching forces. 177 578

The main areas in which the Papago people, old and young, have been

177 caught by the re-evaluation of their concepts of life may be indicated briefly
as follows:

578 1. They have been taught for ages the principles of co-operative family organi-
zation and have experienced its satisfactory functioning, which implies the
157 reliance of everyone on everyone else, the condemnation of individual aims
177 which might disturb this organization, and a corresponding modesty and
578 inconspicuousness whenever the individual finds himself in a group
situation.

White people, on the other hand, teach them by model and by implication that the individual should try to become more industrious, more clever, stronger, and in every way better than his next of kin and his neighbor; that his talents and aspirations are more important than the welfare of his family. The Papago sees that the one who has the best knowledge of English, who is quick in stating his requirements, and immodest (according to Papago rules) in his approach will have advantages denied to those who behave according to Papago custom. They observe that they are judged constantly by standards which put brother above brother, son above father, according to personal achievement. In school, the child who speaks up boldly is praised; the one who does another child's task for him is blamed. On the whole, competition and personal achievement are stimulated and encouraged much more than co-operation (as understood by the Papago).

2. White concepts of the acquisition and accumulation of personal property
157 for prestige and power are strange to the Papago, to whom personal prop-
556 erty consisted of a few objects for wear and use which were destroyed at his
177 death. Prestige and power came from the wisdom of age and experience or
from grace given by the supernatural.

Today the value of personal property is clearly demonstrated by white people in their display of clothes, furniture, and cars, in the way they spend money at the trader's, in the esteem and praise they give the Papago family with greater means of subsistence than others. The restrictive aspects of property have been demonstrated by mission and school, which accent the sanctity of personal property and the wickedness of stealing, and by government's measures to apportion and guard grazing land by districts. The value of personal property is being inculcated into the Papago by the insistent inquisitiveness of administrative employees about exactly what belongs to whom and why, and who has the right to sell a specific cow and who has not. Finally, it has been brought home to them as pay for their labor—individual wages in money for individual work, to be spent by the receiver at his own will, automatically make him the master of his property, while

157

previously the Papago had known almost exclusively common payment in 177
kind for common effort.

3. Among the Papago, authority lay chiefly in the family, not only during [556]
childhood but throughout life. Authority was conceived as growing with age and with increasing responsibility for descendants. The old men in the village council reflected only the family situation to the younger ones, who had the assurance that slowly and gradually they too would gain those privileges which were denied to them in youth.

With the advent of white civilization new symbols and representatives of authority have appeared and demanded their share of attention and recognition from the Papago. Among them are the Catholic fathers and brothers of the Franciscan Order and the men and women of the Presbyterian Mission. The functions of the Christian clergy may not be considered by the Papago very different from those of their medicine men. But, while the medicine men exert their influence exclusively upon relationships between man and the supernatural and all their active interest in temporal matters is indirect and must go through the filter of supernatural and magical concepts, the clergy have included within their sphere of direct influence such matters of morality as had previously been the concern of the Papago family.

Representatives of the white administration, whether visiting officials or 157
members of the Agency established on the Reservation, are just that many
more completely new additions to the Papago pattern of authority. They 177
do not offer any points of comparison to either the grandparents or parents, 657
the medicine man, or the old men of the village councils. In bewildering contrast, most of the new representatives are relatively young men and women, who rarely remain among the Papago long enough to demonstrate the gradual growth in experience and wisdom which the Papago always required from those to whom they granted authority. Their sphere of influence, as it is concerned with organizational and economic questions, with education and with health, cuts clearly across the old sphere of the family.

Teachers, the majority of whom are women, have become new disci- 157
plinarians for the children. Their principles and objectives of training not
only cover different areas of knowledge but also are often in discrepancy 177
with teachings received at home. The discrepancy may be fundamental— 875
as, for instance, regarding the favorable evaluation of competition—or it may represent a change of emphasis upon specific attitudes, as in the case of the very high value given to certain rules of hygiene in school, which often must seem to the children an implicit criticism of home conditions.

157 177 Thus, all the new representatives of authority are or may become serious rivals of the family. Offering aims and ideals different from or even contradictory to those of Papago society and culture, they are not, at least at present, models whose authoritative position may be aspired to or achieved by any appreciable number of the Papago. This factor considerably strengthens the impression that these representatives are clearly and hopelessly superimposed from outside.

157 177 858 4. Old Papago institutions are being threatened not only by new authorities which white culture has introduced but also by changes in the position of Papago children and young people brought about by the introduction of white institutions and practices. Education of children in schools rather than in homes is increasingly breaking the continuity of experience and common sharing between adults and children. It implies a new concept of childhood as a prolonged, and at the same time sharply delimited, period of preparation for adulthood. In addition to segregating children from adults over many hours of the day or months of the year, the school teaches skills such as arithmetic and a knowledge of English, which have little bearing on the common life of the Papago but are all-important for dealing with the alien culture. Thus the school experience in itself and the content of teaching tend to produce a cleavage between children and adults.

The relation of young adults to their elders is also being changed by what they have learned in school. Young people with initiative and some knowledge of the language and customs of whites are rapidly advancing to positions of importance in tribal matters. Furthermore, many of the young men and women seek wage jobs which make them independent of the family, and all wage-earners are paid on the basis of individual performance rather than for the work of a group. Both the rapidity of "political" advancement and competitive wage-earning weaken the Papago principles of gradual maturation into privileges and position and of the distribution of roles according to the physiological needs and interests of different age groups.

157 177 813 5. Another concept deeply rooted in Papago culture is belief in supernatural influences, which projects intention into coincidence, correlates the unrelated, removes the barriers of space and time, and humanizes nonhuman objects and manifestations. Against this belief is now placed the Western concept of cause and effect which, on the one hand, relieves man from being simultaneously the fear-stricken victim and the unlimited master of the supernatural and, on the other hand, limits and strengthens the immediate efficiency of his power of action.

6. A moral law based on complete adjustment to the society that has developed 157
it is being confronted with a morality of personal goodness and badness 177
which does not necessarily coincide with such adjustment and may demand 577
from the individual attitudes and reactions opposed to it. With this goes a far-reaching re-evaluation of the very meaning of goodness and badness in the religious sphere and in that of interpersonal relations.

These are the main areas in which the Papago have been exposed to influences and pressures of an alien society and alien culture. It will easily be seen that all these areas are closely interrelated and that efforts to make changes in them are in effect attacks upon the totality of Papago life. 157 177

The fact that the people who carry the extremely complex white culture to the Papago country are recruited from different classes, with greatly divergent backgrounds, reactions, attitudes, and aims, certainly does not lend persuasive strength to force.

The Papago, accustomed to the relative simplicity and consistency of his own patterns of life, soon discovers that accepting the concepts of modern American civilization at face value, as they are taught to him in mission and school, throws him into conflict not only with his own culture but even with many practical demands and aspects of white civilization.

For example, the superintendent of the Agency and the teacher tell him that alcohol is forbidden, harmful, and bad; the innkeeper in town, disregarding laws or scoffing at them, offers him drinks; the white drunkards he meets encourage him to follow their example. The missionaries of both churches teach him brotherly love and the merits of purehearted poverty; but some whites may scorn him as a "dirty and primitive" Indian, and others openly demonstrate the satisfactions and power of wealth. Still other whites complain to him about the injustices they themselves have to suffer from the laws he is asked to admire. The priest points to the miracles of healing through faith in God, and the doctor insists that sickness is a matter of hygiene and "bugs," to be cured through hospitalization and sulfa drugs. Because to a minority group every member of an encroaching majority has a certain authority merely through belonging to the dominant group, independent of any personal qualifications, all these people will represent to the Papago so many models of white civilization.

What to believe and whom to trust are much more crucial difficulties to the Papago than to white people, who are conditioned to accept the intricacies and inconsistencies of their culture as normal and make a distinction between

157 177 those persons whom they believe to be representative models of their culture and those whom they consider atypical.[1]

REGIONAL DIFFERENCES IN ACCULTURATION

177 184 In a group spread thinly over so large an area as the Papago Reservation, white influence will vary greatly. Some of the test findings from western and eastern Papago children show that the pressure upon Papago society differs in extent and direction in different districts.

In the West it has been limited largely to economic factors, combined with casual influences to which the Papago visitor or temporary laborer in town is subjected or which he may easily observe; these influences are relatively free from elements of planned and direct indoctrination. Western Papago, who are mostly Sonora Catholics, have infrequent contacts with the Roman Catholic or Presbyterian clergy. Their children usually attend school intermittently. The government Agency is over fifty miles away, and relations with officials have been comparatively tenuous.

In the East, on the other hand, alien economic elements, missions, schools, and government operate with considerable strength. Here the direct influence of indoctrination upon Papago ways of life is more intense, more systematically planned, and much more constant than in the West.

157 177 184 One of the tests in the present study—the Free Drawings—was used to determine how far material attributes of white culture have taken root in the minds of Papago children.[2] If the appearance in the children's drawings of items from white civilization, such as airplanes, automobiles, and school buildings, were adopted as an index of over-all adjustment to white culture, the conclusion would be that western Papago children are not only more acculturated than those of the eastern districts but also the most acculturated of all the Indian children tested in this project. In the light of facts easily observable as to actual conditions of life in eastern and western Papago areas and in various other tribes studied, such a conclusion cannot possibly stand. However, integrated with findings from other tests, the psychological significance of the Free Drawings is convincingly clear and comprehensible.

It will be recalled that the western Papago children showed in their other tests emotional experiences, concepts of right and wrong, and basic reaction

---

[1] One Papago in a sardonic mood remarked that a good deal of time and money have been spent in explaining the Papago to the whites. What is needed, he said, is some effort to explain the whites and their ways of thought to the Papago, for to most of them white manners, customs, and ways of thinking are a closed book.

[2] See Brooke Mordy, "Content Analysis of Indian Children's Drawings: A Method for Comparing Culture and Degree of Material Acculturation" (MS).

4: Joseph et al D,E-5 (1942-1943) 1949

NU28 Papago NU28

patterns which corresponded closely to the conditions of life and general attitudes observable in their communities. Their only conspicuous symptom of a trend toward acculturation lay in responses indicating the relatively great importance of property and money. The reader will also recall from the other tests that it was the boys of the western communities who placed the heavy emphasis on the value of money and property. The Free Drawings of the western boys included many more white items than did those of eastern boys. At the same time, however, western children also drew more specifically native items than the eastern children (see Table 19).

157
177
184

All these findings suggest that the western area, though conserving the social organization and cultural values of the old Papago pattern, has been caught by and is responding freely to the economic and purely material advantages of white American culture. New economic experiences have not yet essentially changed the western Papago's pattern of living. Work in the Ajo mine, the principal form of wage work known to the western area, has always been intermittent. If the worker does not take his family with him to Ajo, they carry on their normal life at home, just as the worker ~~himself~~ does between jobs in the mine. The other source of wages—work in the cotton fields—has only recently become important in Papago economy, and it allows a close replica of the old Papago pattern: family labor, co-operation, and the sharing of experience.

TABLE 19

TYPES OF ITEMS SHOWN IN FREE DRAWINGS BY PAPAGO CHILDREN OF TWO AREAS (PERCENTAGE DISTRIBUTION)*

	WESTERN PAPAGO			EASTERN PAPAGO		
TYPES OF ITEMS	Boys	Girls	Total Group	Boys	Girls	Total Group
Recent white derivatives	49	35	42	22	25	23
Early white derivatives†	5	8	7	9	7	8
Native	16	21	19	11	15	13
Landscapes	30	36	32	58	53	55

* Data from Brooke Mordy, "Content Analysis of Indian Children's Drawings: A Method for Comparing Culture and Degree of Material Acculturation" (MS).

† These are items derived from the Spaniards, such as domestic animals, which have been a part of Papago life for so long that they are thought of as Papago.

But, though the new economic experiences have not yet altered the basic life-patterns of the western area, they may have disruptive effects. It is the men who work in the mines; and in the cotton fields wages are customarily paid to the male head of the family for work done by all its members. These facts, together with the boys' realization that they will be the chief earners, keepers, and spenders of the family income (apparent from the importance they attach to it), threaten to reallocate the roles, the relative independence, and the authority of the sexes to the disadvantage of the women. Another potentially harmful aspect of cash wages is their easy convertability into liquor. The concern of western Papago children (particularly girls) over drunkenness, which is greater than that of eastern children (and indeed considerably greater than that of any other Indian children or of midwestern white children), indicates the western Papago's awareness of this problem and confirms reports and observations of excessive drinking in their districts.

157
177
184

Eastern children are different in some respects. In their Free Drawings the eastern children—boys and girls alike—show fewer native items than the western children, as well as fewer objects from white culture. Both sexes prefer to depict landscapes, which, being noncultural in character, do not involve commitments to either the Papago or the white way of life.

Reviewing briefly the results of the other tests, the eastern children, in comparison with those from the West, show: (1) fewer associations of family members with emotional experiences and discipline, and the attachment of more importance in these respects to nonrelatives, particularly age mates; (2) less emphasis on the parent as disciplinarian for boys and on the father's disciplinary role for girls; (3) a lower moral evaluation of family co-operation and work; (4) more frequent mention of experiences and attitudes connected with personal achievement and with aggression; and (5) with regard to the basic reaction pattern, less tendency to interpret reality subjectively, without reduction of the trend toward withdrawal, which is beginning to appear as an established introversion instead of an intermittent reaction.

These combined findings suggest that eastern children, who are more influenced by white American culture than the western Papago, are undergoing a psychological acculturation which is correspondingly deeper and more extensive. It is obvious that the findings reflect the influences of white culture and are not due to primarily intratribal differences between the western and eastern areas, for the decrease of values which (according to anthropological evidence) are elements of the aboriginal Papago culture is accompanied by an increase in concepts clearly belonging to white American culture. A good job, schoolteachers, missions, going to heaven or hell—all are such concepts of unequivocal significance. Thus the comparatively little attention given in eastern children's drawings to objects of white material culture is not indicative of a low degree of acculturation but a sign that in the East the weight of importance and interest is no longer laid primarily on material aspects of the new culture.

Though the eastern acculturation pattern is so much more complex, it does not show the incongruities of the western, which clearly point to certain potential personality disturbances. Disintegration of Papago *culture*, numerous signs of which appeared in the test results of the eastern communities, is not necessarily accompanied by *personality* disintegration, if the old values have been supplanted by new ones which produce security. The tests suggest that a new set of values grouped around the principles and the institutions of the two missionary churches, and, to a lesser degree, of the school, is being assimilated by the eastern children—in short, that a fast-developing economic acculturation is about to be balanced by a growing spiritual acculturation. 157 177 184

THE PAPAGO AND THE FUTURE

This situation augurs well for the future adjustment of the Papago. Such optimism, though it must remain guarded, is strengthened by the attitudes of eastern adult Papago toward the alien culture and by certain sociopsychological considerations. 000

Papago adults increasingly accept the values of personal achievement and personal property. They show more and more interest in matters of school education and of tribal (in addition to village) organization; they participate eagerly in the ritual and accept the moral laws promulgated by the two missionary groups. 157 177

What are the reasons for this ready acceptance of alien principles, which distinguishes the Papago from many other Indian tribes and gives promise of their increasing adjustment to American ways of life?

In the first place, the Papago do not have in their history a tradition of hostilities with white people. They have no equivalent of the Navaho imprisonment at Fort Sumner or the massacre of the Sioux at Wounded Knee. Their contacts with whites in the historic past were short-lived and friendly. Father Kino and the other early Spanish missionaries came to the desert like guests who stayed only a short time and left hope for the afterlife, precious gifts, and a memory of kindness. Apparently, the few institutions introduced in the name of the Spanish crown were only halfheartedly maintained by the infrequent visits of officials. Later, under the regime of the United States, the desert still protected the Papago from too great pressure and molestation by whites. Papago and whites sometimes united in common defense against the raiding Apache. The establishment of the Reservation and with it permanent direct contacts with white people occurred so late that the Papago escaped the drastic pressures of the early period of Indian Bureau administration, with its compulsory segregation of Indian children in boarding schools, its dissipation of tribal resources through the allotment policy, and its general disregard for the

157 177 human dignity and the cultural rights of Indians. We may say therefore that the Papago have experienced the more favorable side of American domination as have few other tribes.

Furthermore, Papago culture and its institutions, as we have seen, have been so little formalized and so loosely knit that alien forms and institutions did not destroy a highly organized, elaborated system, causing deep resentment and actively challenging attitudes, detrimental to a wholesome and balanced development of personalities. At the same time, Papago culture itself has elements favorable to acculturation because they are similar to, or at least not in violent contrast to, white concepts. These are dominant family loyalty, a moderate patriarchal trend, the institution of local councils which show a certain similarity to American ways of democratically handling a group, and religious beliefs which, in their magical nature, have not crystallized into definite images and symbols conspicuously opposed to those of Christianity.

However, all these elements can be considered as favorable to acculturation only in comparison with those obviously unfavorable in certain other Indian cultures—e.g., in comparison with traditions of Indian-white hostilities, dominant clan organization, matriarchal trends, theocratic institutions, and a religious system tied to visibly represented images. Discrepancies between the values of Papago culture and those of white American civilization are potentially demoralizing; and, while there are prospects of a constructive solution, much will depend upon whether the new values offered to the Papago are acceptable to them and will prove to be reliable sources of security.

Except for drunkenness, concern about which is less pronounced than among the western Papago, we do not observe in the test results obtained from eastern children any clear signs of general personality disintegration or maladjustment. There is, however, the previously mentioned pattern of changing reactions; whether they indicate constructive or destructive influences on Papago personalities cannot be determined at this stage. At the present time, family loyalty and the positive evaluation of co-operation and work remain very high indeed, but not so high as in the West. Though the rise of aggression may easily become a symptom of dissatisfaction, it is still not so conspicuous or so general that it could not be guided toward aims of personal achievement. On the other hand, individualism and the drive for personal achievement probably are not yet sufficiently developed to supply strength and support in tryingly adverse circumstances.

Papago plasticity may be an important factor in the struggle between the two cultures. This plasticity is in part a deceptive reflection of Papago evasive tendencies which may cause lack of open resistance to be mistaken for com-

pliance. Partly, however, it seems to be the genuine trait of a people forced to 157
adapt to conditions of scarcity within a vast desert area; of a people who, instead 177
of strongly defending what they have, are constantly on the lookout for
new opportunities.

How far this genuine plasticity may be an essential element of Papago per- 157
sonalities is hinted at by certain differences in the basic reaction patterns re-
vealed in the Rorschach test of the Presbyterian and Roman Catholic children 177
in the eastern districts. The two tested groups were rather small, including 797
only forty-one and twenty-nine children, respectively; hence the test results must be evaluated with great caution and considered only as a suggestive basis for more thorough research. Still, differences between the groups are striking enough to justify mention here. They concern mainly the areas of emotional control and of the defense mechanisms used in periods of stress and insecurity.

Presbyterian children on the average appeared strictly to control and even to repress their emotions. They showed a pronounced trend toward withdrawal into themselves, giving a picture of established introversion. Roman Catholic children revealed instead on the average a high degree of impulsiveness and a tendency toward emotional outbreaks. Thus, in comparison with the reaction pattern of western Papago children, both Presbyterian and Roman Catholic children of the eastern districts showed deviations in self-discipline—an increase of its conscious and internalized use among the Presbyterian children and a certain incapacity for controlling their impulses among the Roman Catholics.

Whether and how far such differences are due to specific influences of the doctrines and educational methods of the two missionary groups is extremely difficult, if not impossible, to determine clearly, but there seems to be a certain congruency between the psychological patterns and the doctrines and methods. Presbyterians emphasize a personal conscience and strictly individual moral responsibility. As observed on the Papago Reservation at the time of the study, they combine a definite regard for family discipline and authority with a constant, detailed, and direct checking system, mutually employed by church members and missionaries. The Catholic missionary's approach to the Papago accentuates ritual observance and acceptance on faith of transcendental concepts and complex symbols far removed from native comprehension except by intuition. Though the clergy refrain from everyday contacts and interference with the people, they appear to laymen as representatives of a powerful hierarchy who in all their relations with the Papago maintain the claim of unquestionable religious authority.

In the process of acculturation both doctrines and methods have shown their

157 177 797 strength and their acceptability for the Papago, who receive from one a firm religious foundation for their patriarchal family life of hard work and co-operation, and from the other a magnificent exaltation of their own beliefs in grace and magic. Whatever insecurity the Presbyterian teachings may have caused probably center in the unaccustomed direct pressure and in the strict religious and moral exclusiveness which might result in a relative loss of spontaneity, in introversion, a[illegible] constriction. Catholic teachings might produce emotional instability through the bewildering necessity for the Papago to combine what he feels as a heightening and deepening of his visionary tendencies with new principles of obedience and authority which formalize and generalize his purely personal experience.

157 177 Based on the results of one test only and on relatively small groups of children, these statements are largely speculative. But even if they be disregarded on this account, the integration of all the test results with the attitudes observed in present-day Papago life gives one main impression of Papago children: They are characterized by a high capacity for absorption of alien values and forms of life and, at the same time, by an almost equally high tendency to evade clear-cut commitments. Both traits have grown from the specific background of Papago culture, and together they constitute a combination which may be conducive to the survival of the Papago minority and its future adjustment to white American civilization. Papago evasiveness, though often a cause of despair for the white administrator who would like to speed up acculturation, apparently does not serve as a barrier to acculturation but acts rather as a cushion against destructive pressure, slowing the revolutionary process into one of gradual assimilation. This leaves time and opportunity for the development of the necessary psychological equivalents to socioeconomic changes.

5: Castetter & Bell N-5 (1938-1940) 1942
NU28 Papago NU28
Pima NU29

Pa
174
312

from the Baboquivari and Quijotoa valleys runs by a circuitous route through the Great Plain and unites with similar ephemeral streams in Sonora to form the Sonoita. Except for occasional floods the channel is dry for more than twenty-five miles to a point a short distance above Sonoita.[44] Similarly, irrigation was practiced at San Xavier by the Papago who occupied this village after the Sobaipuri had abandoned it within historic times. Maps in Bryan's[45] report and those in Hoover's paper show in parts of the Papago-Pima country the location of fields, streams, washes, springs, tanks, *represas* etc.

Pa
312
241

The Papago continue to the present to pursue their *de temporal* farming much as they have always done, although Pima agriculture has undergone marked changes. The Federal Government, beginning in 1913, drilled wells in a number of Papago villages and such wells are now scattered throughout Papago territory, but they are used for watering stock and enabling residents to remain throughout the year, and have no bearing upon the growing of crops. In 1919[46] the desert Papago in Arizona were reported as flood-water farming about sixteen thousand acres of land, while those at San Xavier had about fifteen hundred under ditch irrigation, with water largely from wells.

Pi
Pa
177
241

Three changes in Piman life, affecting both Pima and Papago, have been of the utmost importance in ameliorating their economic condition, even though the concomitant white influences have resulted in pronounced deculturation, notably among the Pima. The first of these was the introduction of foreign crops. The earliest to be received, and the most important for both peoples, was wheat. This provided an off-season crop, planted anywhere from mid-November to early February, depending upon the winter rains, and harv-

[44] Bryan, *Papago*, p. 119.

[45] Bryan, *ibid.*; Hoover, *The Indian Country of Southern Arizona.*

[46] *Report of the Commissioner of Indian Affairs* for 1919, pp. 279, 287, 289.

5: Castetter & Bell N-5 (1938-1940 1942

NU28 Papago NU28
Pima NU29

Pi
Pa
199
241

ested in May or early June. This also provided a more equable seasonal distribution of farm work and furnished a crop at a period of the year which heretofore had been very lean. The Papago for a long time, however, cultivated only small amounts of wheat and it has been only within the last few generations that wheat cultivation has deeply affected them. The second is the digging of government wells convenient to many of the *temporales* and farms (beginning in 1913), in some cases with a resultant development of permanent villages around them. This also has meant termination of the annual migration to the hills which had been such a potent influence in Papago life; moreover it has made possible a more sedentary life with a sanitary water supply, and the inhabitants of villages with such wells are usually more progressive and more prosperous. Important among these changes was the third factor—introduction of cattle. While this has been a boon to the Pima, it has been of more importance directly to the Papago, particularly in the eastern part of the reservation, where the stand of grass is better and the Papago now graze cattle for both home consumption and market. A pastoral economy is well suited to a scattered population such as the Papago. Cattle did not become important among the Papago, however, until the latter part of the nineteenth century. In the southern part of their area, where they had had cattle since Kino's day, several large ranches grew up, but in the north, which retained its ancient economy in a purer form, the raising of cattle was adopted more slowly. When the Jesuits left the Piman territory many of the domesticated animals went wild. Thus these Indians early had an opportunity to secure horses and cattle—a practice which began in Kino's day.[47]

Pi
Pa
199
312

Pi
Pa
199
231

By 1904 the Papago in southwestern Pima County were making their living chiefly by stock raising, while in 1908 many in Fresnal Valley were reported as having cattle, upon

---

[47] Mange, *op. cit.*, p. 246.

5: Castetter & Bell N-5 (1938-1940) 1942
NU28 Papago NU28
Pima NU29

Pi Pa 179 231

which they depended wholly for support. In 1919 it was estimated that the aggregate cattle holdings of the desert Papago were about thirty thousand head.[48] As late as 1846 the Pima were reported as having few cattle and these only for tillage.[49]

The modern Pima have profited greatly by the introduction of cattle; today they not only raise cattle for their own use, but more commonly rent their lands for pasturing cattle owned by the whites. The grazing of custom cattle by the Pima has steadily grown since November, 1932, when six hundred were secured from the Tremaine alfalfa ranch. In 1935 approximately 55,000 such cattle were on the Gila River Reservation, and during the winter months of the same year about twelve hundred sheep also were pastured there. Many of the Pimas now work for hire, as is true with the Papago at San Xavier, at Tucson and the copper mine at Ajo. Individuals of both groups eke out an existence or supplement their meagre income by cutting and marketing dead wood. Beginning in 1933 marked stimulus was given toward acculturation, particularly among the Papago, by the appropriation of emergency conservation funds. This is having far-reaching effects upon Papago as well as Pima economy and culture; it is transforming Papago economy from a gift and barter to a money basis and gradually raising their standard of living.

* * *

Pi Pa 174 311 241

It would be highly desirable to present an accurate statement of the amount of land anciently cultivated per family among Pima and Papago as well as the total amount of crops and wild food used annually per family or per person. Due to cultural disturbances and distortions, however, it is now very difficult to arrive at exact figures. Moreover the ratio between cultivated and wild foods utilized fluctuated con-

---

[48] Curtis, *The American Indian*, II, 31; *Report of the Commissioner of Indian Affairs* for 1904, p. 149; *ibid.* for 1919, p. 287.

[49] Emory, *Notes*, pp. 83-5.

5: Castetter & Bell N-5 (1938-1940) 1942
NU28 Papago NU28
Pima NU29

CHAPTER IV

PIMAN CULTIVATED CROPS

Examination of the early literature reveals that Piman agriculture at the close of the seventeenth century, in harmony with the agricultural situation in the Southwest in general, centered around the maize-bean-pumpkin complex. Kino, Mange and others[1] repeatedly refer to the Papago, Pima and Sobaipuri cultivating and utilizing much maize, beans, pumpkins and in some places cotton. Although these Indians had gourds,[2] there is no specific reference to their cultivation. The early accounts do not record the growing or utilization of tobacco, and there is no indication that its culture was pre-Spanish. While *Martynia* for some time has been grown for use in basketry, it is uncertain whether it was cultivated aboriginally. Sunflowers were never cultivated nor even utilized. Although maize was the most important Piman crop, and could be utilized as food in more ways than any other, among the Papago the tepary bean approached it in value because of its tolerance of drought. As indicated by our own field studies, as well as the work of Forde, Gifford, Kroeber, Drucker and Spier,[3] there was considerable similarity between the crops and basic economy of the Pima-Papago and those of the tribes on the lower Colorado River.

Gi
Pa
174
241

With the coming of the Spaniards various Old World crops were introduced into Pimeria Alta, although it is clear

Gi
Pa
241
174
177

---

[1] Mange, *Luz*, pp. 215-17, 229-30, 247-50, 258; Bolton, *Kino*, I, 187, 195, 207, 248, 255, 291; II, 207; *Documentos*, 3rd ser., IV, 838-39; Coues, *On the Trail*, I, 107.

[2] Bolton, *op. cit.*, 270; Wyllys, *Velarde's Relación*, pp. 133, 136; Mange, *op. cit.*, pp. 249, 263.

[3] Forde, *Ethnography of the Yuma Indians*, pp. 107-14; Gifford, *The Cocopa*, pp. 263-67; Kroeber, *Handbook*, pp. 735-37; Drucker, *Culture Element Distributions: XVII, Yuman-Piman*; Spier: *Yuman Tribes*, pp. 48-81; *Cultural Relations of the Gila River and Lower Colorado Tribes.*

5: Castetter & Bell N-5 (1938-1940 1942
NU28 Papago NU29
Pima NU29

Pi Pa 174 241 177

that at least wheat, flax and watermelons had reached part of the area before Kino's arrival in 1687. In order to furnish a more stable food supply for Indians at the missions, and to give them a more secure basis of economic prosperity and independence, Kino distributed seed of wheat, chick peas, bastard chick peas, lentils, cowpeas, cabbages, lettuce, onions, leeks, garlic, anise, pepper, mustard, mint, melons, watermelons and cane, as well as grapevines, roses, lilies, and trees of pear, apple, quince, mulberry, pecan, peach, apricot, plum, pomegranate and fig.[4] Some suggestion of the extent of his industry in getting crops planted and herds of cattle established may be obtained from his observation that in April, 1687, only about a month after his arrival in Pimería Alta, the Indians in Nuestra Señora de los Remedios were very disconsolate and did not wish to be Christians, because among other things the fathers required so much labor and sowing for their churches that no opportunity was left the Indians to sow for themselves, and so many cattle were pastured that the watering places were drying up.[5]

An interesting reference was made by Mange[6] to the effect that in June, 1694, in company with Kino and Gilg, he found the Pima Indians growing flax in the vicinity of San Miguel del Tupo, which had a lake and springs of water. Kino was very skeptical of its being flax, but this was later verified and, although not as fine as that cultivated in Europe, they concluded it was of the same kind. Thus Kino's surprise at the occurrence of cultivated flax in Pimería Alta indicates that it had been introduced into Mexico from Europe and moved northward into Sonora previous to his arrival in the area. A wild blue flax *(Linum Lewisii)* does occur in mountain valleys through the Southwest into Mexico, but we have no knowledge of its having been cultivated, except ornamentally by whites.

[4] Bolton, *op. cit.*, 122-23, 204, 248-49, 253, 381; II, 89, 100, 138, 165, 265.
[5] Bolton, *op. cit.*, pp. 114-15.
[6] Mange, *op. cit.*, p. 262; Bolton, *op. cit.*, p. 194.

5: Castetter & Bell N-5 (1938-1940) 1942
NU28 Papago NU28
Pima NU29

As the penetration of foreign animals into Pimería became very rapid soon after Kino's arrival, he quickly established a number of stock ranches with cattle, oxen, horses, mules, burros, goats, sheep and chickens.[7] A letter written by Salvatierra to Father Leal in 1699 notes that "already there are here eight species of animals from the other side, now acclimated to Loreto [in adjacent Lower California]."[8] However, as late as 1846 Emory[9] stated that the Pima had few cattle and these were used for tillage. Pi Pa 174 231 177

There is every indication that no antagonism existed on the part of the Pima-Papago to the introduction of foreign crops by the Spaniards, in fact they received them with enthusiasm. Although these Indians had a very high regard for their own ancient crops, the mere fact that the introduced ones produced well was all the justification needed for their acceptance. Pi Pa 174 241 177

The introduced crops which proved to be of greatest significance in early Piman economy were wheat, barley, watermelons and cowpeas, and in that order; the most important domesticated animals were horses and cattle. Although maize was anciently the leading crop the introduction of wheat gradually shifted the balance, and, among the Pima, wheat rather quickly came to rank first, maize second; among the Papago, maize continued to hold first place until about a hundred years ago because of the difficulty of adjusting wheat culture to the desert habitat. A perusal of reports of the Commissioner of Indian Affairs for the last third of the nineteenth century, with their tables showing the large yields of wheat in comparison with the small yields of maize for Pima and Papago, enables one to appreciate the marked extent to which wheat replaced maize in Piman economy.

In 1865 the Pima were reported as growing wheat, maize,

---

[7] Bolton, *op. cit.*, pp. 122-23, 143-44, 165-66, 204, 321, 357-58; II, 150, 166; Mange, *op. cit.*, p. 309; Wyllys, *op. cit.*, pp. 128-29.

[8] Bolton, *op. cit.*, p. 223.

[9] Emory, *Notes*, pp. 83-5.

5: Castetter & Bell N-5 (1938-1940 1942
NU28 Papago NU28
Pima NU29

Pi
Pa
174
241
177

barley, beans, peas, melons and pumpkins.[10] In 1846 Emory found them cultivating maize, wheat, watermelons, beans, pumpkins and cotton, and in 1856 he added to the list sugar cane and peas.[11] Similarly, in 1873 Grossmann[12] said of them "Wheat, corn, beans, and above all, pumpkins and mesquite-beans are their principal food," and indicated that wheat actually was their main crop, with barley, onions and cotton of lesser importance. Whittemore[13] wrote in 1893 that more than one hundred years before that time the Pima on the middle Gila raised maize, melons, pumpkins, cotton and "a small round seed which they ground and boiled as mush"; Lloyd[14] in 1903 likewise found them growing wheat, maize, beans, pumpkins, watermelons, peppers, gourds, tobacco, and a pea which was probably the chick pea (native cotton by that time had ceased to be grown). Although he observed that perhaps even more than maize or wheat the staple food of the Pima was beans, there can be no doubt that wheat was their leading crop then as it had been for a long time. This is supported by the statement of Russell[15] that wheat was their most important crop when he worked among them in 1901-02. Wheat continued to hold this leading position with both Pima and Papago, at least until 1924, and today ranks second only to alfalfa in Pima acreage. In 1919 the main Pima crops, ranked on the basis of cultivated acreages, were wheat, cotton, alfalfa (one thousand acres, practically all Hairy Peruvian), barley, milo and beans.[16]

Pi
241
177

In 1907 the Coöperative Testing Station at Sacaton, on the Gila River Indian Reservation, was established through

[10] *Report of the Commissioner of Indian Affairs* for 1863, p. 384.

[11] Emory: *loc. cit.*; *Report on the U. S. and Mexican Boundary Survey*, p. 117.

[12] Grossmann, *The Pima Indians of Arizona*, p. 419.

[13] Whittemore, in *Among the Pimas*, p. 52: although one cannot be certain of the identity of this plant, it is possible it was one of the semi-cultivated grasses known to the lower Colorado River tribes and to the Maricopa.

[14] Lloyd, *Aw-aw-tam Indian Nights*, pp. 58, 60.

[15] Russell, *Pima*, p. 90.

[16] King and Leding, *Agricultural Investigations*, pp. 5, 29.

5: Castetter & Bell N-5 (1938-1940) 1942
NU28 Papago NU28
Pima NU29

a coöperative arrangement between the Office of Indian Affairs and the Bureau of Plant Industry of the U. S. Department of Agriculture. The station was created for the study of agricultural problems of the Southwest with special reference to those which might have value for the Indians on the Gila River Reservation. Many crops have received attention, but the bulk of experimental work has related to the breeding, improvement and culture of Egyptian cotton.[17] Pi 241 177

In 1923 only 8,965 acres of Pima land were in cultivation because of water shortage; likewise a census of Pima farms and crops on the Gila River Reservation in 1929 revealed that, because of lack of water for irrigation, crops were harvested from only 7,774 of the 29,530 acres of farm land available. Of these, about three thousand acres were in cotton, 2,100 in wheat and sixteen hundred in alfalfa. The yields on these acreages were 1,264 bales of cotton, 29,913 bushels of wheat and 4,790 tons of alfalfa. In 1935 the harvested Pima acreage was approximately 35,000, of which 24,000 acres were farmed by Indians. Of the latter, 1,443 acres were planted to cotton (American-Egyptian and upland types), 4,188 to wheat and 2,500 to alfalfa. Grain sorghums, Sudan grass, corn and barley also were grown on a considerable acreage for feed and pasture. Truck crops, consisting of beans, corn, tomatoes, onions and melons, were also grown for home use and, to a small extent, for commercial purposes. The field station has maintained a very productive strain of yellow Bermuda onions for about thirty years and the Pima have continued an interest in growing these, particularly for home consumption. Additional land is being brought under cultivation for the Pima, with family allotments of from ten to eighty acres, and an average of thirty.[18]

In 1878 the Papago were reported[19] as cultivating 2,500 Pa 241 177

---

[17] King, *Crop Tests at the Cooperative Testing Station*, pp. 1-2.

[18] King and Leding, *op. cit.*, p. 5; King and Loomis, *Agricultural Investigations*, pp. 8-9; King, Beckett and Parker, *Agricultural Investigations*, pp. 9, 11, 98.

[19] *Report of the Commissioner of Indian Affairs for 1878*, p. 298.

5: Castetter & Bell N-5 (1938-1940 1942
(
NU28 Papago NU28
Pima NU29

Pa 241 177 acres of land and as having grown six thousand bushels of wheat, five hundred of corn and three hundred of oats and barley. Among the desert Papago the cultivated crops today are, in order of their importance, kidney beans (pinto and pink or rosa beans), Sonora and Early Baart wheat, maize (both flour and dent varieties as well as small amounts of flint corn), black-eyed beans, white and brown tepary beans, pumpkins (principally cushaw and cheese types), Anaheim chili, watermelons, muskmelons, a few varieties of lentils and small amounts of chick peas. In 1919 common pink beans were reported as a staple crop among the desert Papago, who in the previous year grew 1,800,000 pounds of beans and 300,000 pounds of maize. Most of the irrigated crops of the Papago are located at San Xavier, near Tucson. Here the chief crops were reported in 1904 and 1908 as being wheat and barley; in 1919 they were said to have raised ten thousand bushels of wheat, and 250 tons of barley hay. Today the leading crop is barley; also grown are wheat and alfalfa, as well as beans, pumpkins, maize, oats, very small amounts of cotton and tobacco, spinach, cabbage, onions, carrots, chili, a few potatoes, some apples, peaches and plums.[20]

Pi 241 For the past four or five years the principal Pima crops, in order of importance, with acreages, for the Gila River Indian Reservation follow:

Alfalfa (Chilean) for pasturage and hay.........about	4,000 acres (1940)
In earlier years fair amounts of Hairy Peruvian were grown. Alfalfa is planted chiefly in fall.	
Wheat (Early Baart, Sonora, etc.)	2,600 acres (1940)
Cotton (American-Egyptian Pima and Acala)	1,200 acres
Field Corn (Mexican June and native types)	800 acres
Barley (Common and Vaughn)	700 acres
Grain sorghums (Hegari, Yellow Milo, etc.)	500 acres
Dwarf Hegari is the most popular.	
Beans (Teparies, Pima-Hopi limas and common pink beans (*frijoles*))	450 acres
Sudan Grass—for pasturage	?
Watermelons, muskmelons, pumpkins, onions, etc...	small acreage
Date palms, pecans, grapes, figs and pomegranates...	small amounts

---

[20] *Ibid.* for 1904, p. 148; *ibid.* for 1919, p. 287; Curtis, *The North American Indian*, II, p. 31.

105 tion and it was the opinion that there was no mixture with Mexican
or Spanish. The Government maintained four day schools on the
reservation.

[114] The study of Papago music was begun at San Xavier, near Tucson,
Ariz., in February, 1920. The Papago village is near San Xavier
177 Mission, which was established in 1692. At this mission the Franciscan
Fathers minister to the Indians, who number about 700 in this
locality. The Government agency was located here in 1915, but was
moved two years later to Indian Oasis, now known as Sells, Ariz.
The Papago at San Xavier live in adobe houses and still grind their
own corn, but are adopting a general use of food supplies purchased
in Tucson. (Pl. 2.) The country around San Xavier is desert with
133 mesquite and cactus. There are rugged hills and deep gorges cut
by rivers that are raging floods at some seasons and "dry runs" at
other seasons. The principal varieties of cactus are the saguaro or
137 giant cactus, and the cholla. (Pl. 3.)

764 On a hillside near San Xavier is an old burial place. (Pl. 4, *a*.)
The burial spaces are formed by building a low stone parapet on the
side of the hill and roofing it with heavy timbers thrust into the hillside.
The bodies were placed in these spaces, or shelters, and all
openings were closed with stones. After a suitable time the bodies
were taken out and others were placed in the inclosure. There were
compartments in these burial chambers and several bodies were
placed in each compartment. They have not been used in recent
times and some remain tightly closed, while in others it is possible to
see parts of skeletons and fragments of various sorts. Plate 4, *b*, *c*,
shows the same opening, one being at a distance and the other showing
the interior, where a skull can be seen. Near it was a bone that appeared
to be part of a leg or arm. Scattered about were bits of leather
resembling parts of a saddle. This place is particularly sightly. It
133 faces the south, with a magnificent sweep of view. The mountains
in Mexico can be seen at a distance of about 40 miles, while in the
foreground is an expanse of desert. The old and new are strangely
177 mingled here, as it is in this desert that the Government is establishing
(1921) an irrigation system by means of which the Indians will
be able to irrigate their land.

114 A further study of Papago music was made in November and
December, 1920, at Sells, more than 60 miles west of Tucson. Songs
were also recorded at Vomari village, and information was obtained
at Santa Rosa, the former being in the extreme southern and the latter
in the extreme northern part of the reservation. The customs and
songs differ somewhat in different localities, and numerous photographs
were taken showing the geography of the country. Between
133 Sells and Vomari the country is more mountainous than in the vicinity
of San Xavier, the most prominent mountain being Baboquivari

It has been the good fortune of the Papagoes to live 177
in a country which the white man as yet has not found
it profitable to exploit by cattle raising or, still less, by
dry farming. Therefore, they have so far been left alone
in their native country, and besides they have even come
into possession of a few wells which the Americans dug
in their efforts to redeem the land. These natives are
thus better situated than most of the tribes of North
America.

The Papagoes are above medium height, rather dark 142
in color, and of splendid physique. The women are inclined to be stout. They are a peaceful but at the same 181
time courageous people and show much intelligence.
They are hospitable, as becomes a desert people, and if 574
food is being prepared in the house when a stranger
comes, some of it is offered to him, be he Indian, Mexican, or American.

In the central part of the Papagueria, especially in 177
the large valley of Santa Rosa and the adjacent Quijotoa 182
and Comobabi ranges, they live happy days without
much interference from the whites. Some of the summer 311
rancherias astonished me by their extent of land
fenced by wooden piles and poles, but in outlying districts many are forced to seek work from the whites, by
whom they are much valued as laborers in the making
of railroads, irrigation ditches, and in mining. The part
of the tribe that lives in Sonora is much more disrupted;
they have lost most of their lands and are largely servants of the Mexicans, doing efficient work as *vaqueros*
(cowboys), miners, etc. The Papagoes also know how 177
to "dry wash" gold at the placer mines, many of which 316

177 are found in Sonora, and the discovery of one or two
316 large placer mines has been due to these Indians.

231 The Papagoes are by no means badly off, as a rule,
511 and they manage to make a good living where, so far,
the white man's efforts have failed. Their herds, adapting themselves to the arid conditions, are increasing and
making the Indian prosperous and comfortable. Good
mules now carry burdens which his wife or he himself
formerly had to toil under; cheese is made from the milk
of their cows and sold or used for their own consumption, and, above all, they have wheat and maize in suffi-
[439 cient quantities to last them all the year round. They
also have wheat and occasionally some head of cattle to]
sell, obtaining in return commodities of civilized life.
[177 The white man's kitchen utensils are being acquired,
412] and the women have begun to find it more convenient to
use flour than to grind the grain on the metate. No
native race, though keeping its language, can help changing its ideas under such conditions. In a very few years
there will be no more interest attached to the Papago
than to the native descendant of the once proud Aztec
in the suburbs of the City of Mexico.

191 Although the Papago in Arizona always insists upon
speaking his own language, still he is rapidly losing his
182 aboriginal beliefs, customs, and habits; even basketwork,
177 for which the women of the tribe were noted, is falling
into decay. Both in Arizona and Sonora the Indians
have completely adopted the white man's garments.
177 Some old man may still be found in the more remote
241 parts wearing his aboriginal apparel, consisting of a

breech cloth around the loins, but this is getting to be 177
an extremely rare sight, and it must be confessed that 291
the ready-made blue overalls of the white laboring man of the West, the colored shirt, a picturesque neckerchief, and gray felt hat with straight brim are quite becoming to the young bucks with their superb, lithe, and supple figures, with somewhat narrow hips. No man wears his [302]
hair long any more, but tattooing marks in the face are [304]
still seen on men and women of the former generation in the Santa Rosa valley, where ancient customs and beliefs have been preserved longer than anywhere else. In this extensive valley are also found the most important rancherias.

I was glad to have visited these Indians while there 177
was still something of the ancient atmosphere left in the more remote parts of the Papagueria. The fact is that these decided changes in the conditions of the Papago have come about comparatively recently, perhaps during the last thirty or forty years. As Mr. Bandelier, the great authority on the history of the South-west, truly says, the ethnography of Arizona has not changed much since the year 1600. The Apaches by their raids altered tribal relations, but the change that most concerns us here is due to the settling of the country since its annexation by the United States, and in Sonora to the discovery of gold. Though possibly originating in a less arid region, the Papagoes, in relation to their environment, ought to be a no less interesting study than the country itself.

000 straw, barley, or wheat, the usual feed for animals. If our horses had not been hardy creatures of the desert, we should not have been able to move about much at that time of the year. I decided to return to Menager's store, at present called Indian Oasis, where we might succeed in securing forage.

A Papago was an efficient clerk in the store. Near by [177] was a small village of civilized Indians; the women, who had been to school near Tucson, after a while responded [191] in English, very softly spoken. A phonograph, which was the only one I saw in the Papagueria, was produced and operated for my entertainment. Many Indians came into the store from the neighboring country. As they [261] were not in the habit of carrying provisions, they were hungry and looked it. I treated them to a generous [796] breakfast and my reward was the information which they volunteered concerning one of their festivals, connected with the gathering of the fruit of the sahuaro, the giant cactus. It was to take place the next day at a rancheria called Noria, situated in the Comobabi Mountains at no great distance, and I decided to go there.

Opportunely for my journey, in the evening of July 4 unusually heavy rain fell during forty-five minutes, the storm making short work of my tent which I decided to leave behind here on account of its being so large and inconvenient. Nearly an inch of rain must have fallen, bringing about in this brief space of time a remarkable change in the appearance of the landscape. The dry creek ran with water and the playa below was changed into a shallow lake, the frogs filling the air with their loud,

000 the moonlight. "*Compañero,*" he said, ejaculating a few
more words in unintelligible Spanish, at the same time
thrusting forward a big open bottle with bright red contents,
the smell of which at once made me aware of the
576 situation. He was offering me sahuaro wine as a proof
of his esteem. But he might have chosen a more reasonable
hour for his hospitality, so I bluntly answered: "No;
I will have nothing until I get up." He disappeared
among the bushes as quietly as he had come; in fact, he
did not give me time to ascertain what had become of
him, and it seemed like an unpleasant dream. However,
being desirous of getting some rest before the ceremonies
that were sure to take place at sunrise, I fell asleep again
after a while.

796 The wine did not mature as early as expected, and in
the morning one of the principal men told the people to
805 gather when the sun would be half-way between noon
and sunset, when the culmination of the feast would take
place. One of the Indians confided to me that the people
thought I was all right; I danced with the proper step.
Gradually crowds began to assemble, many of the young
men on horseback; slender of figure but above medium
height, they were of prepossessing appearance, sitting
erect and following well the movements of the horse.
177 Everybody was in his best attire, all adopted from the
whites, and everybody, both men and women, looked
clean. But there was no hurry about anything. After
a few hours passed in this way, the Keeper of the Smoke,
who was the general manager of all the proceedings, was
seen to spread out blankets and mats on the dancing

After a while she[1] appeared at a

482 distance with a big tin bucket on her head, but how much 512 more beautiful my small Rebecca would have looked carrying an earthen-ware jar of native workmanship. There are lots of pottery vessels still manufactured by the Papagoes, but the white man's implements are recognized to be more practical. I suppose the change is unavoidable, but the bucket was distinctly disappointing to my photographic sense. Before she approached my vantage point, an Indian met her who evidently asked for a drink, for he lifted the heavy bucket down, drank, and put it on her head again. When I gave her some candy after the short and unexpected ordeal, she looked frightened. She stepped along quickly, showing somewhat that she felt the weight that she had been carrying for fifteen minutes. This was six o'clock in the morning and, on rising, she had first helped her mother milk the cows.

Half an hour afterward she again passed my camp; this time she was bound for the sahuaro fields along the base of the mountains. The girl of thirteen years walked fast, carrying over one shoulder the long stick with which the fruit is brought down. Two hours later she returned with a small bucket full of the juicy fruit, on which a newly arrived guest and the rest of the family gorged themselves, while she sat near by resting. She did not look tired, however, and I saw her later helping [177] her mother make wheat biscuits, baking them in an oven adopted from the Mexicans.

124 533 774 It was a great pleasure to be with these natural people. I sang to them my newly acquired Papago song, "The

[1] [i.e., Marianita, a young Papago girl. -Analyst]

000 seemed able to live here. The prevalent vegetation[1] was,
137 as usual, greasewood with salt bushes now and then.
Low sand dunes were visible here and there.

177 The Pimas of Kohatk I found to be good-tempered,
[302] affable people. The women cut their hair in front so as
to have bangs and they are good-looking. These natives
seem to be somewhat under Roman Catholic influence
and have abandoned their native feasts. Photographing
was as much detested here as elsewhere. The sight of
[774] my camera would make the children take to the woods
and the old men hurriedly disappear on hands and
knees into their dome-shaped huts.

[191] I heard neither English nor Spanish spoken, but the
[177] inhabitants have adopted the frontier man's way of living,
frying their meat in lard and adding quantities of it to
their beans. They buy white flour and make unwhole-
[262] some tortillas in boiling lard. This heavy, poorly cooked
food forms their daily regime, without any variety. A
small bucketful of coffee is distributed at meal-time both
[231] in the middle of the day and in the evening. They pos-
sess cattle but, like most white ranchers, are too lazy to
milk the cows. The meals are appropriately served on
plates of cheap crockery and cups bought in the white
[146] man's stores. The participants give audible evidence of
consuming more lard than is good for them, and, were the
facts known, "to be as dyspeptic as a civilized Indian"
would be an adage. Think of the anomaly of leaving
wholesome, natural, well-cooked dishes for a diet of lard
and the cheapest kinds of canned goods.

252 Contrary to the universally accepted opinion, the cui-

[1] [i.e., in the country between Anegam and Kohatk.-Au.]

may be seen playing harmoniously together, where a
similar gathering of small Caucasians would soon result
in discord, fights, and tears. The children and young
261 girls have three kinds of chewing gum; the one which is
[824] most commonly used has been mentioned already, an-
other is procured from the pod of a vine which comes
early and dries in July; by squeezing the pod a milk is
secured which when boiled yields a gummy substance.
● 177 These natives never shake hands; they come and go and
576 are never obtrusive. In the circumstances under which
I travelled, I liked that custom; it made me feel inde-
pendent and equally polite. When an Indian comes to
shake hands with me, I know he has changed his mode
of life, for one may be sure that he learned that cus-
[194] tom from Americans or Mexicans. Their language is
not sonorous, as it is full of guttural sounds and half-
[801] pronounced syllables. Four is their sacred number.

In the autumn of 1909 there was a mild epidemic of
164 an eye disease among the Papagoes of Sonora as far
west as La Nariz. The eyes were red and inflamed, as
in conjunctivitis, and the pain evidently was very great.
They probably contracted this disease from the Mexicans.

147 In his changed habits of life, inhabiting houses that
164 do not admit air and adopting clothes that debilitate his
magnificent physique, the Papago, when he catches cold,
is unable to throw it off in the same way that a white
man does. It very often develops into pneumonia and
consumption, which awful disease is the scourge of the
tribe, nine out of ten deaths being due to tuberculosis.
The children bring it from school and even old people

ASCORBIC ACID DEFICIENCY AMONG PAPAGO INDIANS

M. PIJOAN, C. A. ELKIN AND C. O. ESLINGER[1]
U. S. Indian Service Nutrition Laboratory and Department of Chemistry, University of New Mexico, Albuquerque, New Mexico

(Received for publication November 28, 1942)

INTRODUCTION

101
131 The Papago Indians, a people of Uto-Aztec origin, live in sequestered communities, among reservation lands of approximately 2,500,000 acres. These settlements extend along the frontier of Arizona and Sonora and are bordered by the Pima reservation on the north. The land itself is typically that of an Arizona desert, with vegetation of cactus, palo verde, mesquite and ironwood; it is an arid, forbidding, isolated region with very low precipitation.

262
177 The Papagos, over five thousand in number, pursue their temporal farming, much as they have always done, but in many instances a deculturation process has taken place with a change from a diet of wild plants and animals to one of more or less refined cereals and occasionally meat. The fact that the bean is the staple food of the Papagos is borne out by the name given to these Indians, "papawi o' otam," meaning "bean people."

262 The principal foods in the Papago diet are beans of several varieties: white, brown and yellow tepari (Phaseolus acutifolius), pink beans (Prosopis vulgaris), mesquite beans (Prosopis chilensis), and screw beans (Prosopis pubescens); garden peas (Pisum sativum), and black-eyed beans (Vigna sinensis), corn (Zea mays, amylacea), pumpkins (Cucurbita

---

[1] Senior physician, U. S. Indian Service, Sells Agency, Sells, Arizona.

822 colors with their familiar names was facilitated by the use of colored papers.[1]
192 Translations of most of the native words require the qualifying adverbs "almost" or "very", or the phrase "very much." The Papago prefixes *cah-* and *sih-* indicate a relationship between the hue determined upon to represent the color designation and similar colors which are compared to it. Theoretically, these latter belong to the same color group, i.e., they warrant the use of the same color designation. Judging from the evidence gathered, there is no implied differentiation in the term "almost" between a degree of relationship based upon value and one based upon purity. For example, *oamᴇ* is yellow, and *cahsoamᴇ* is almost yellow, but whether the latter is almost as dark as the color determined upon as *oamᴇ*, or almost as full strength (pure) as *oamᴇ*, is neither implied by the adverb, nor shown by the several colored papers chosen to identify the tints to which *cahsoamᴇ* was applicable (chart 1). Some of these tints were almost pure light yellows, and some were dull light yellows. They were all, however, high on the value scale. By contrast with commercial dyes natural dyes are usually more or less grayed or dull, yet there are appreciable differences in brightness among them.

But although the word *cahsoamᴇ* may be applied to any one of several light tints of yellow, pure or dull, *sihsoamᴇ*, very yellow, indicates more definitely a relationship involving brightness or purity of color as well as value. The choices of colored papers identifying "very" yellow, "very" green, etc., proved this. Dolores' remembered reactions connected with the first purchased dress materials to appear on the Reservation are additional evidence.

822 Really bright colors were unknown among the Papago. Color mixtures are
536 still used just as made, without attempts to modify by blending two or more together. It is true some colors do change while undergoing various treatments, as for example, the yellow of buckskin, which may become reddish during the tanning processes, but the change is due to the condition of the materials used rather than to intentions. The dyes and paints used by the women basket makers and potters are few in number and without strong contrasts. Even accidental color arrangements can hardly escape being harmonious. Pottery has black, or black and red patterns, on natural buff-colored clay. The question of which colors should be used or where they should be distributed could never have been very insistent.

177 The first European costumes to be adopted by the Papago women seem to
291 have been conservative. They had full skirts with ruffles at the lower edges,
122 usually made of light or white materials with small designs (calicoes). The Pima and the Mohave women dressed differently. The Pima at first bought yardage to wind around their waists sarong-fashion. Later they, too, made full skirts. The materials they bought were dyed in crude colors, and the

---

[1] Milton Bradley's *Studio Book of Colored Papers* (Springfield, Massachusetts). Each of the 18 hues appears in five value steps: two tints, middle value, and two shades. Since many of the Bradley papers are too bright, it was necessary to find some examples among duller papers.

9: O'Neale & Dolores E, 1-4 (no date) 1943
NU28 Papago NU28

women's inexperience in combining them showed in the garish inharmonies. 177 Their dresses were riots of violent contrasts. Bright red, green, and yellow 211 skirts banded at the bottom with other colors equally bright served to identify 822 the wearers as far away as they could be seen. The Papago were astonished at the quantities of strong colors used. Bright colors warrant the use of the adverb "very" in describing them. In such cases the prefix *sih-* means not the darkness or lightness of the color, but its purity. .

Certain color names can be modified to indicate that the color is very dark. 822 Since the modifier is formed of the Papago word for black (*icu*'KE), the trans- 192 lations of *sicu'kema sewe*'KI and *sicu'kema sictata*'KI, *sicu'kema spi'tema*'KI, and *stuc'kema smuhata*'KI are equivalent to blackish red, blackish green, blackish muddy color, and blackish greasy color.[3] Obviously a modifier meaning blackish cannot be used with the remaining color designations on the list, whites, blacks, and grays, or with yellows which become browns upon darkening, or with *ipahi* color which is never dark.

Conventional uses of specific colors on objects in the everyday life of the 822 Papago are almost totally lacking. Red and black are the "right" colors for 821 the painted designs on the feathers and shafts of arrows, but the basketry and 823 pottery seem not to offer analogous examples. There is, however, one occasion upon which four specific colors are required, and upon which they have special significance. These four colors, symbolizing the directions, differentiate the rain clouds in the Papago Rain ceremony:

NORTH: *skokema*'KI *icewa*'KI
gray clouds
WEST: *swe'pe*'KI *icewa*'KI EAST: *sictak icewa*'KI
red clouds white clouds
SOUTH: *spitema*'KI *icewa*'KI
muddy clouds

The color names for the clouds in the east and west need no explanation. The names for the southern and northern clouds derive from the Papago origin story. At the time of the flood, the rubbish that was carried along stopped in 177 the south (*Va'holikwe*). The flood waters went down in the north (*icupin*,

---

[3] Certain differences in the spellings of the same word should be noted. In the main, the orthography and spellings correspond to those followed in two earlier papers by Dolores: *Papago Verb Stems* (University of California, Publications in American Archaeology and Ethnology 10, 1913), pp. 241–263; and *Papago Nominal Stems* (Sapir Series 20, 1923), pp. 19–31. Throughout the present notes green sometimes appears as *tcatc*'KI, at other times as *stcatc*'KI, red as we'KI and [illegible] etc. The initial *s* is a formative element; the stem can be used with or without it.

Mountains and places with permanent names taken from colors use the stem without the *s*. East of Tucson is Little Yellow mountain, *alt oam to'a*'KE, a name merited by its appearance in the good years when poppies cover the slopes. Likewise Green mountain is *tcatc*'KI *to'a*'KE and Green Well is *tcatc*'KI *oalyuk*.

822 *ipahɪ* color (corresponds to our purple-red). *cahsipaima'*ᴋɪ, almost *ipahɪ* color; *ipaima'*ᴋɪ, *ipahɪ* color; *sihsipaima'*ᴋɪ, very much *ipahɪ* color. *ipahɪ* is the name of the prickly pear plant, as well as of its fruit. *mah* is the verb to give. The combination means to give the color of the fruit to something. *ipahɪ* is similar to dark cerise or crimson.

[386 824 The juice of the *ipahɪ* fruit, which appears somewhat lighter when dry, is one of the most easily obtained paints for coloring the feathers on arrows. In addition to its availability, the juice can be used just as found.

● 177 822 192 *Color designations of Spanish origin used by the Papago.*— The group of color terms in this section are generally applied to the animals which were brought in by the Conquerors. Determining clear meanings for these adopted words has not been a simple matter, nor can the authors be certain that they always have had the same ideas in mind. Comparable difficulties are encountered in attempts to differentiate the characteristic appearance of surfaces to which the English words flecked, pied, mottled, splotched, or dappled are applicable.

Some of the Papago-Spanish equivalents are obvious.[4] It is essential to recognize that *l* and *r* are frequently confused, and that *b* and *v* are interchangeable, especially in phonetic spellings.

The following compilation of terms includes those in common usage among the Papago:

alihcani, sorrel. (Sp., *alazán*, sorrel-colored.) Applied to horses.

kaniloh, roan. (Sp., *acanelado*, cinnamon-colored. If the unaccented initial vowel and the intervocalic *d* are dropped, the equivalence seems clear.) Applied to horses.

lihsintoh. (Sp., *retintado* (?), retinted.) If two colors are evident, but one of them has the appearance of having been painted over the other, the effect is called *lihsintoh*. Applied to horses. When the color spots have more distinct outlines, the designation *pintoh* describes the effect.

pintoh. (Sp., *pintado*, painted, spotted, mottled.) To the Papago, this word means two colors, but it is necessary to mention which two, since no indication is contained in the word itself.

savinoh. (Sp., *sabino*, a mixed white and chestnut color. Applied to horses and mules.) The Papago apply this term to a dappled buckskin horse.

su'kelahtoh, one of the browns. (Sp., *chocolate*.) Applied to dogs.

valihsah. (Sp., *barcino* (?), ruddy, approaching redness. A word regularly applied to cows, bulls, dogs, etc.) As the Papago apply this word to cows it does not mean a single color, but a mixture of colors which produces a spotty effect. *valihsah* is always used in combination with some color name indicating that that color predominates, or is most noticeable. *valihsah* is similar to our mottled, a word which in itself only describes an appearance, and one which requires a phrase "with green," "with blue," etc., to clarify the meaning. *valihsak* can be used with black (*stcu'hema svalihsaṭa*'KE), with yellow (*soamak svo'ihsaṭa*'KE), and with red (*swe'kimak svalihsaṭa*'KE), to describe a mixed color effect. Other grammatically possible combinations would seem senseless to the Papago as, for instance, a mixed color effect in which white predominated, (*stohama svaliksaṭa*'KE). Such a combination probably would be called gray (*shoma*'KI). 177 192 822

---

[4] The authors are indebted to Professor Beatrice Cornish of the Spanish Department, University of California, for helpful suggestions and aid in checking possible Spanish equivalents for Papago color terms.

sayok. (Sp., *albino* (?).) This name is given to different colors, some of them almost white. Applied to horses.

wuilok. (Sp., *albino* (?).) Applied to horses that are white. If the Papago word is from the Spanish albino, it may refer to the color of the eyes. Some very white horses have peculiar eyes. When an Indian has trouble with his eyes, he is sometimes joked about their appearance. No Indian could be the same color as the horses to which *wuilok* applies, but no matter how dark his skin, his eye trouble makes him *wuilok*.

To sum up: Papago color designations indicate a limited need for color terminology in their everyday life. They seem to reveal, in addition, a rather obvious lack of what has been called nature appreciation in terms of color. A few of the examples cited to aid in the identification of a color designation were chosen from natural phenomena, but the fact that the majority of words apply to the color of horses and cows suggests the comparatively late development of color consciousness. Dolores believes that growth in this direction is the result of education and the increased availability of colored objects and materials. 151 532 [822]

There are several descriptive color names on the Papago list. It includes ashen, muddy, smoky, and greasy colors, but no combination equivalent to leaf or grass green, *ipahi* red, sky gray, or poppy yellow. Our word green, for example, covers hundreds of inter-gradations. These require for their identification not only modifiers like olive green or mustard green to show the preponderance of the blue or yellow hue constituents, but also various other modifiers which by analogy indicate relative degrees of value and purity. Parrot green, lettuce green, emerald, bottle, sea, oasis are typical examples of designations inspired by professional stylists. The more simple the system of color terminology, the greater the necessity that each designation be adequate to cover a range of differences in value and purity and that the term be sufficiently flexible to permit extensions of meaning.

The Papago recognise light colors in the formation of their designations by prefixing *cak-* meaning a little like, or almost. They also use a modifier to indicate the dark or blackish colors, and although they have no separate term connoting the brightness, purity, or intensity of a color, their prefix *sik-* in most instances identifies a hue as nearly pure. The majority of the Papago color designations, however, emphasize the value or light-to-dark variations.

UNIVERSITY OF CALIFORNIA
BERKELEY, CALIFORNIA

coyotes, and decayed vegetables.[14] Settled again from Tecolote, Poso Verde, 178
situated in a semicircle of foot hills, is now one of the most pleasing of all 648
the Papago villages.

The "trincheras" or walled fortifications on the isolated mesa four miles 712
east of San Miguel were built by the Papago as a retreat in case of Apache
raids. They are in this respect distinct from the prehistoric trincheras on
the mount just south of Sells, near Poso Verde, and through the Altar
Valley, described by Sauer and Brand.[15]

The most important factor in making new and smaller settlements de- 231
sirable has been the introduction of cattle, dating from the journeys of 177
Father Estubio Kino, 1691–1702, followed by those of Father Garcés, 361
1768–1775. Along with Christianity, Father Kino introduced cattle, horses,
and chickens. Cattle did not become important with the Papago, however,
until the latter part of the nineteenth century, and the extensive areas be-
tween their limited fields were of little use to them except as game pre-
serves. By hunting and gathering in these areas, they supplemented the
produce of their fields, but no inducement was offered to permanent settle-
ment of these areas. In 1849–1850 John Audobon described the Papago as 222
fast passing away, judging from the dilapidation of the towns and the num- 262
ber of empty houses.

> The people live on turtles and what game [illegible]ey can get. I have seen small elk and antelope skins dressed and terrapin shells a[illegible] everywhere. We have bought two terrapins fresh killed, some roots, and the fruit of a plant called the manguey.
>
> Why it is that these Indians settle in such a country, I cannot conceive, for even
> the lizards, in most places innumerable, are scarce here. The Indians kill them with a
> light wand, giving them a dextrous tap on the head. They pick up the game, slip [482]
> the head under a belt or string round their waists, and when sufficient are collected,
> a little fire is made, and this delicate repast is enjoyed by them as an epicure would
> relish his brace of woodcock.[16]

Audobon also described a sort of mush made of grasshoppers. The in- 252
sects were caught and dried, then pounded and mixed with meal or pinole,
parched wheat or corn, spiced and pounded.

Pastoralism is better suited to a scattered population, so the tendency 231
has been for the larger villages to break up into more scattered settle- 361
ments. The passing of the old Tecolote village in favor of smaller communi- 178

---

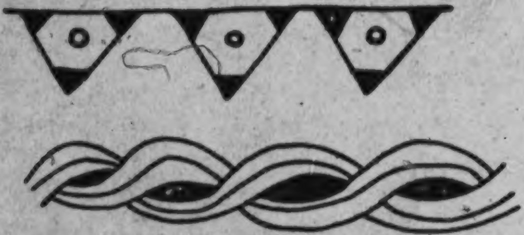
[14] J. Ross Browne, Adventures in the Apache Country (New York, 1874), p. 277.

[15] Carl Sauer and Donald Brand, Prehistoric Settlements of Sonora, with Special Reference to Cerros de Trincheras (University of California Publications in Geography, Vol. 5, No. 1, 1931), espc. pp. 67–70.

[16] Audobon's Western Journal, 1849–50 (Cleveland, 1906), pp. 148–50.

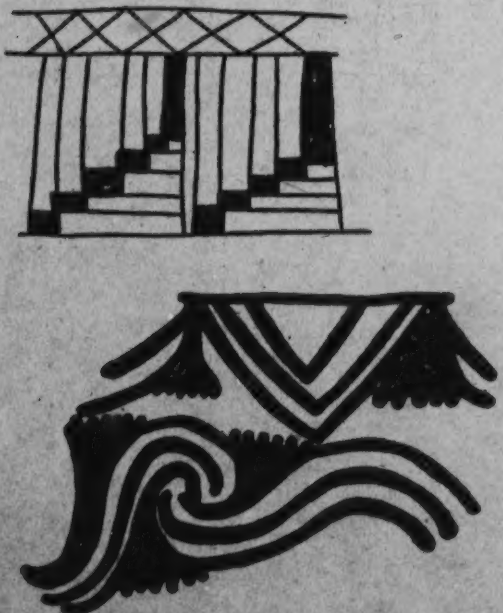
In the Arizona State Museum at Tucson are bowls of two kinds—one a shallow 323 type with straight sides, and the other smaller, with a more rounded outline. Additional forms include straight-sided jars, a zoomorphic vessel in the shape of a duck (?),

[531]



Designs on Modern Papago pottery

[531
172]



Designs on old Papago pottery

and ollas somewhat larger than those observed at Santa Rosa. Some of these examples represent modern types. The widespread use of pottery among the Papago has been [177] greatly modified since the entry of American settlers into the neighboring regions.

GERTRUDE HILL

FLAGSTAFF PUBLIC LIBRARY

VIKITA CEREMONY OF THE PAPAGO (CONT.).

796
292
[534] masks were painted in a black chevron pattern, the chevrons arranged in
columns side by side, about an inch wide.

Attached to the back of the mask, below the clump of feathers and
at about the base of the head, was a strap or panel of variously colored
cloth or canvas, hanging free, usually about 4 to 6" wide, and reaching
to the small of the back. This panel was fringed, usually with short
turkey feathers, and had ornaments fastened to it. These ornaments
were, variously, of tin, cut into diamonds, squares, or circles, of
mirrors large and small, of cutout paper figures representing both a
person picking sahuaro fruit and a curious human figure with what seemed
to be horns on its head. One back strap had the chrome plated hub
● [177] shields of an Essex and Plymouth automobile fastened to it, brilliantly
polished. Several had spread hawk wings tied to the panel edges in
place of the turkey feather fringe. Others had the tail feathers of
[825] the Western Red Tail Hawk arranged side by side across the bottom, with
turkey feather fringe on the sides; another had the spread tail of a
similar hawk tied across the bottom. The fringe of one strap was of
the green imitation grass used in Christmas decorations. Another had,
in place of the usual panel, a medallion about two feet in diameter,
of long hawk or eagle feathers arranged radially about a small central
disc, and attached to the headdress by a slender strap.

Many or all masks had a braid or twist of horsehair or human hair attached to each side, hanging down over the dancer's breast, and ornamented with tufts of red down or other bright plumes.

The dancers wore white garments reaching to the knees, usually
sleeveless. Some of these shifts or tunics were opened up the side
from hem to armhole, with overlapping edges apparently held closed by
the belts which the men wore. Others wore plain tunics without the
side opening. The belts were varied. Many were of wide canvas, with
[534] cowbells and dinner gongs tied to them. These sometimes had a fringe
of tinklers, made of cones of rolled tin five or six inches in length,
hung by thread or copper wire from the lower edge of the belt. One
man wore several immense brass bells, resembling sleighbells, three
or more inches in diameter, on his belt. While most belts had a few
bells, several were solidly hung with them.

Many dancers, in addition to a narrow belt with bells tied to it, wore fringed aprons, consisting of two roughly semi-circular pieces of canvas, one before and one behind, joined at the hips with string. One at least wore a black apron. Another dancer wore a cloth cartridge belt, with large wooden cartridges four inches long, painted red and blue, in the loops. At least one dancer wore a machete, in its scabbard, stuck through his belt. Some carried pouches attached to their tunics below the right breast, and several of these pouches looked suspiciously like ladies' handbags.

797 soon after his death and their later history, in spite of the picturesque labors of the saintly Garces, shows no great revival. 177 The Papagos, after a brief Spanish influence, were left to their own devices. They had acquired horses from the Spaniards, and had learned to plant wheat and some imported vegetables and fruits. Their houses gradually changed and adobe dwellings came into use, and as they adopted clothing it was the colorful mantilla and the Spanish cowboy costume which appealed to them. Many had been baptized by Kino and they continued to seek the priests so as to get for their children Spanish names. Except for these changes their old life continued, while the Pimas, whose contact was with the American whites of gold rush days, changed more rapidly. This paper therefore presents a brief account of Papago customs and ethnobiology as reported by the first Spaniards and as seen in the remoter villages at the present day.

132 The Papago country is one of the hottest in the Southwest; the annual rainfall is about five inches and this takes the form of violent storms in the summer, when for a few hours the washes run full. 133 221 The country is a series of flat valleys between abrupt low ridges or hills, and it is only in the hills that there are springs which give a permanent water supply. Therefore, to get even drinking water the Papagos had to lead a migratory life, although it was a migration within set bounds. In the summer, after the torrential rains, they moved to the flat land to plant their small gardens, and from this base scattered out on food-gathering parties. The women brought in leaves, fruits, seeds, and roots; the boys hunted rabbits and birds, while the men attended to what agriculture was possible. They dug a reservoir which supplied them with drinking and washing water while it lasted, after which the whole village had to move.

221 There was generally a winter camp where all the members went, and this was called the Well, while the summer dwelling was known as the Fields. At the Well every family

Indian games of hidden ball, stick dice, and "quince" was 525 one means to fame and prosperity. Athletic contests in 556 which the youths of the different villages contended at kick ball and relay racing were yearly events, and a fast runner, famous in racing, was as highly esteemed as any warrior.

In government[1] the Papago unit was the village. There 621 were several large villages, each with a few outlying settlements which were governmentally a part of it, obeying its officers and taking part in all its ceremonies. The head man of this village had no executive authority but was rather 622 a patriarch and a priest. He knew the ritual for the different ceremonies and had charge of the sacred objects belonging to the village. His title has been translated "Keeper of the Smoke."

The brush house in which he lived was made extra large and was used as a meeting place by the men of the village, who formed an informal council. The Keeper of the Smoke passed his functions to a male relative or descendant, but there was no rule of primogeniture. Any of his relatives who seemed best suited would be instructed by him in the duties of office, but the village as a whole must finally ratify the choice. The villages each had a 624 crier who called to the council meeting and to war. They might have an elected war leader if the Keeper of the Smoke were not fitted for battle.

After the coming of the Spaniards a much more rigid 177 organization was adopted. The Spaniards installed in their 622 villages a "governor" who was an executive with authority and power to punish evil doers by flogging. At least in the part of Papagueria nearest to Mexico this custom continued until recent times, so that now there is much confusion between the old idea of the village patriarch and the modern one of governor or chief.

The Papagos were divided into sibs with descent in the 614 male line. Even in tradition, however, these gentes did not affect the marriage rules; one knew to which gens

---

[1] This section dealing with government and social organization has been abstracted from *Papago Social Organization* by Ruth Underhill (in preparation).

Most hamlets make some effort to channel the flood 241
water to their fields. Ditches are dug from the wash to 312
the fields situated alongside, the ditch ending in the middle of the field so that the water will flow all over it. If there be several fields, one beyond the other, there may be a main ditch with several branches.

Planting in the old days was never begun until after 241
the first rain ceremony had been held. This was not because it was taboo, but because the soil would be too dry. Any village which found it convenient held the first ceremony and "caused the rain." After that successive villages held ceremonies during the summer so that the rain would continue.

Nothing in the nature of plowing was done until after the coming of the Spanish missionaries. Since then until [177]
rather recently (when the steel plow was introduced), plowing has been done with a plow made from a single piece of mesquite wood *(Prosopis velutina)* (7). Before that the procedure was simply to wait until the ground was moist, then make holes with the digging stick and drop in the seed The digging stick was the same as that in the western Pueblo area and northern Mexico—a straight stick without a footrest, made of ironwood *(Olneya tesota)*, four feet long with a sharp point hardened in the fire. The man using it stood erect and dropped it into the soft earth where it made a hole four to six inches deep. A woman followed, carrying the seeds in a small basket; she pushed a little loose earth into the hole with her bare toes, dropped in four seeds, and covered them with a single foot movement.

In order to get the seeds in as soon as possible before it rained again, the whole hamlet generally worked together. If rain came the same day, the seeds would be washed out; if not for three or four days, they took root. They might be washed out several times in succession, in which case planting would be given up.

The principal work of the summer was keeping the ditches clean but cultivating was also done with the weed

323
415 bush *(Prosopis velutina)*, which is scraped off in summer
386 after the rains, made into balls and stored. When needed
for use these balls are boiled in water, strained through a
cloth, boiled again until syrupy, and applied with the tip
● [177] of a feather. The informants stated that the use of this
substance was learned from the Maricopas.

323 In the making of pottery two paddles are used, usually of mesquite wood *(Prosopis velutina)*, one for the bottom and one for the sides of the jar. The one for the bottom is shaped like our butter paddles while the one used for the sides is shaped like a cleaver. Among the Papagos pottery is not coiled as is the case among the Pueblo Indians, but is always paddled into shape.

415 Drinking cups are usually made of gourds *(Lagenaria vulgaris)*, although small baskets might also be used. Gourd drinking cups are made of the gourd fruit cut in two longitudinally while fresh, the pulp and seeds removed and the hollow hemispherical halves then dried. A hole is punched in the shells and they are then strung on a man's belt with a buckskin thong. Often they are the only eating and drinking vessels on journeys.

Another vessel is furnished by the giant cactus *(Carnegia gigantea)*. When the surface of this plant is bruised such as by the pecking of woodpeckers the plant responds by covering the wound with a hard scar. This scarred area is sometimes rather large and deep, forming a natural cup-shaped structure which is used by the Papagos as a dish or a tobacco pouch. These dishes are eagerly collected and most households have an assortment of them.

Russell (22) refers to the Pima as obtaining small wooden trays and plates—circular, elliptical, and rectangular—from the Papagos. He also refers to the Papagos as making ladles of palo verde wood *(Parkinsonia microphylla)*. These are probably Mexican in origin.

The principal aboriginal crops were corn, beans, 175
and squash, to which the Spanish missionaries added wheat, 105
kidney beans, lentils, vetch, chick peas, and possibly 241
watermelons. These new crops, however, were not grown [177]
in significant quantities until the last few generations.
Wheat could be planted in February and harvested in May, [221]
and corn was regularly planted in July or August when the
summer rains came; thus two grain crops a year became possible, greatly increasing the agricultural potential of the
area, although it was still limited by the extreme variation
and scarcity of rainfall.

The typical family was made up of the parents, 175
their children, and the wives and children of the sons. 105
Such units were grouped into villages with a tendency for 596
village members to be related through the paternal line. [621]
Like other southern and western Arizona groups, the family
was the important economic unit, with each family responsible for its own subsistence.

Religious practices were centered around the 175
recurring events of the annual economic cycle interspersed 105
by many curing and other personal crisis ceremonies. The 796
regular annual round of ceremonies included as its most [771]
important events a rain ceremony in early summer, after the [221]
gathering of the fruit of the giant cactus, at which the [361]
fermented juice of the fruit was drunk, and a deer dance in
the autumn or early winter when the people had moved into
their mountain localities from the summer field villages.

175 105 796 their mountain localities from the summer field villages.

The most important and elaborate of all religious ceremonies, however, was the *viikita* which was celebrated every four years. This has been called a harvest ceremony but it was more than that and might better be called a "world renewal ceremony", something designed to set everything in order and to promote general future growth and welfare (Dr. Bernard Fontana, Personal Communication).

175 105 The picture is one of a society of small autonomous villages, loosely held together by custom and tradition, and governed by the unanimous decisions of the older men. For the individual there was a high degree of freedom coupled with full responsibility for the protection, livelihood, and well being of the members of his own family.

181 177 The difference between this type of society and our own is difficult to visualize. The typical Papago feels most intensively both the loss of individual action in our highly institutionalized society, and the loss of almost complete self-dependence. The welfare agency, for example, will feed his children if they are hungry, but he must abide by their rules; the Indian Service school educates his children, but he has no real control over what they are taught, or how they are taught. It is the difference between a society with small resources, and small opportunities, but with maximum individual freedom and responsibility, and a society with great resources and opportunities made possible by the transfer of individual action to group action and controls

800

and controls.

175
177
797
231

European Contact. The first important contact between Papagos and Europeans came about when Father Eusebio Kino brought his missionary program into what is now Sonora and Arizona in the late 1600's and early 1700's. Of greatest significance to the Papago was the Spanish introduction of cattle, sheep, goats, and horses. On several journeys into what is now southern Arizona Kino had stock from the missions of Sonora driven north, and cattle and horses quickly became established in many areas. Unfortunately for the Papago, the Apache in the mountainous areas to the north and east found Papago stock a strong lure for increased raiding activities; as the Apache now also had horses, they could travel far and fast, and both Pima and Papago were forced to defend themselves by means of more carefully organized military activities than had previously been common. The advantages of a greatly increased meat supply from cattle and the increased mobility made possible with horses, were at least partly offset by the continued Apache raids, which neither Papago nor Spanish measures were fully successful against.

175
231
648

175
177
[797]

In spite of Kino's vigorous beginnings, missionary activities were on a small scale and most Papagos remained largely isolated from Spanish contact, except indirectly through the new plants and animals that had been introduced. During the many years of revolution by which

175 Mexico gained its independence in 1821, Papagos from Sonora
177 sometimes fled northward into what is now Arizona, intro-
ducing Spanish ways acquired during their longer and more
175 intensive contact with non-Indians. The Gadsden Purchase,
648 which added the lands south of the Gila River to the United
States in 1853, resulted in the Papago Indians losing their
Mexican citizenship, without gaining full United States
citizenship. Their lands were considered at that time as
available for white settlement, and many springs, wells,
and grazing areas were soon claimed by ranchers moving into
the area. The seriousness of the trespass was not recog-
nized in early pioneer days with respect to the vast desert
175 areas west of Tucson. The situation was different, however,
659 with respect to the compact settlement of Indians around
[162] the San Xavier Mission and, for this group, a reservation
was established in 1874 by Executive Order. By this means
about 70,000 acres of land near the Santa Cruz River were
[423] protected from white encroachment. When much of the area
[311] was allotted to individual Indians in 1890, 1,580 acres
were reported to be under irrigation and an additional
6,440 acres were considered suitable for farming if water
could be made available; the remaining acreage was suitable
only for grazing.

175 About this same time, the 1880's and 1890's, a
burst of mining activity (in the area of the present main
reservation) brought a rapid development of many new wells
and the improvement of old ones, to supply the towns that

175
657
131
[423]

> 10,235 acres within the Gila Bend Reservation, a total of 2,855,920 acres."

No changes of any importance in Papago land holdings have been made since 1944, but a very important change in the nature of Indian title came about in 1955 when, by Act of Congress, the Papago were given all mineral, as well as surface, rights to the reservation.

175
177
657
[648]
[871]

The history of the establishment of the Papago reservations reveals how recently the large majority of Papago have been directly exposed to non-Indian health, education, religious, and other programs. It was not until 1917 that the first federal school was established on the main reservation at Sells and it was not until after 1917 that any attempt was made to develop Papago resources.

175
177
797

The decades following 1910 also saw a renewal of Catholic missionary work and the commencement of Protestant missionary work. The history of the modern influence of Christianity on the reservations is reported by Joseph, Spicer and Chesky (1949):

> "For several years after 1908, brief trips were made to Gu Achi by various Roman Catholic priests who were stationed on the Pima Reservation. In 1915 a resident priest was given jurisdiction over the area, and he made his headquarters near Ko Vaya (Cobabi). In 1923 Father Bonaventure Oblasser moved the headquarters to Topawa. One or sometimes two priests served the reservations for the next decade, carrying on the work of the church and directing its mission schools, which were taught by young Papago. Visits were seldom made to the westernmost part of the reservation,

175
177
797

and it was not until the 1930's that an increase of personnel brought an expansion of Catholic Missionary work.

> "Systematic Protestant missions to the Papago started in 1910, when a Presbyterian missionary began to make regular trips to the main reservation. By 1912 a church and school of that denomination were established at Indian Oasis. Two years later a church and school were set up at San Miguel, and, in 1920, churches were built in Vamori and Topawa. Some older Sonora Catholics were converted; often their children were in boarding school, and word was sent that the children should now attend Presbyterian Sunday School instead of Catholic services. The third generation of Presbyterians is now beginning to grow up, and the membership, a minority on the reservation, remains mostly in the families of the eastern district who were first converted."

175
177
657

Even though scattered schools and churches were established on the main Papago reservations after 1917 and some work was done in the development of stock water and irrigation systems, the most important events in the recent history of the Papago took place after 1930. The most important of these events were the "liberalization" of federal control over the lives of Indians, changes in Indian attitudes toward an improved way of life which took place during and after the second World War, and the appropriation of more adequate federal funds for Indian education, health, resources development, and many other purposes after the early 1950's.

175
657

The nearly absolute control over the lives of Indians which marked governmental policies during the early part of the twentieth century, was finally ended in the

175 631 San Xavier and Gila Bend were each treated as a district and the main reservation was divided into nine districts which conformed with the grazing districts previously established by the Bureau of Indian Affairs. The nine districts on the main reservation are: Baboquivari, Chukut Kuk, Gu Achi, Gu Vo, Hickiwan, Pisinimo, Schuk Toak, Sells, and Sif Oidak. (See Map 1)

175 177 185 The experience of individual Papagos in the armed services and in employment in war industries during World War II, was the second important event in recent Papago history. These experiences opened the eyes of many of the younger Indians to the difference between the poverty of a subsistence life on the reservation and the relative prosperity obtainable through participation in the job opportunities and the economy of the non-Indian world around them. They realized that to take advantage of these opportunities they, and their children, would have to secure an education, learn how to live in outside communities, and adapt their social habits and family life to the demands of an industrialized society. They also learned that some of the miseries of extreme poverty could be avoided if welfare programs were extended to their villages, and that high death rates, particularly among infants, could be reduced through the acceptance of modern medical treatment.

175 657 Upon the basis of these changes in Indian interests and demands, the Bureau of Indian Affairs and interested

trained management and the use of fertilizers, insect control 241 and expensive farm equipment and water pumps.

Flood water farming, as it has been practiced since prehistoric days on the Papago Reservation, consists of the use of surface runoff of rain water at those spots where it could be collected and spread, either at the mouth of an arroyo or along stream beds in the larger valleys. Various names have been used to describe this technique: "akchin farming" (akchin being the Papago word for the mouth of an arroyo), "flash flood farming," and "dry farming." Actually, [177] since the introduction of wheat by Europeans, dry farming, which depends directly upon moisture from rainfall, has been used by the Papago in raising winter wheat. Corn, beans, and squash, however, which must be grown in summer, depend upon flood water which can only be supplied by the artificial spreading of moisture from intermittent streams.

Periodic surveys and estimates made by the Bureau 241 of Indian Affairs show that flood water farming on the main 178 reservation has steadily declined during the past 30 years. 657 How far the decline has gone, however, is not known. 127 In an effort to secure this information the Bureau of Indian Affairs has been systematically carrying out a farm survey during the past five years. Thus far, only the southeastern part [311] of the main reservation has been surveyed (Chukut Kuk, [101] Baboquivari, and the southern part of the Sells district). [634]

162 463 bricklayers, nurses, secretaries, clerks, typists, truck drivers and the like. About 41 percent of the skilled and semi-skilled workers, excluding the self-employed, work on the reservation mostly for the federal agencies and the tribe. [464] Papago Indians, provided they have equal skill, are given employment preference for reservation jobs and it is obvious that they take advantage of this opportunity. Experience thus gained, is, of course, of great advantage to the individual should he desire to seek employment off the reservation.

463 555 In the process of Papago economic adjustment this group of skilled and semi-skilled workers are of special importance. These are the individuals who are up-grading their employment position; who have moved from routine clerical jobs to secretarial jobs, from cotton picking to tractor driving, and from common labor ● [177] [868] to an assembly line. Their children, in most cases, are learning English at home, acquiring a better education than the average and, in the end, they will constitute a large enough group of trained and educated Papagos to assume a responsible position in the development of both natural and human resources on the reservations.

162 464 From the point of view of understanding the employment picture, however, the problem of seasonal and temporary employment must be dealt with. We account for seasonal and temporary employment as follows:

Individuals with mixed employment	111
Unskilled agricultural workers on and off the reservations	294
Unskilled seasonal agricultural workers off the reservations	422
Self-employed farmers and stock raisers on the reservations who rely on supplementary wage work	229*
Off reservation wage workers in domestic and service employment. Temporary workers estimated at	240**

---

*Thirty of the 229 reservation agricultural workers are estimated to be employed full time.

**This group of 240 is derived from the 483 categorized as off-reservation "domestic and service" workers (See Table 18).

463 support this inference. Seventeen crew leaders were interviewed. Only one
464 reported using Indians less frequently than formerly. All the rest have either observed no trend, are using Indians the same or are using them more. Five of the 17 reporting said they are using them more.

464 There are, of course, certain obvious factors inherent in this kind of
177 work pattern which are compatible to general Indian and Papago Indian participation.
829 The worker can enter and withdraw at will without obligating himself to become integrated into Anglo society. The family and village pattern can remain intact. Income tax and social security, in fact, the whole Anglo pay check complex is in most cases avoided. Language barriers are made insignificant, and the standardized relationships within the extended family are most usefully employed to get work through word of mouth communications. The upshot is that this kind of work, though not as rewarding financially as other kinds of work, is least disruptive of folk patterns.

464 Conversely, the advantages of Indians to crew leaders are quite simply that, relative to other domestic seasonal workers, they are dependable, available, and exploitable.

Direct Temporary Farm Jobs. The high utilization (67%) of Papagos as temporary farm workers (as opposed to seasonal) is of significance in two
[461] directions. It indicates, first of all, that Papagos are willing to take this kind of work and that farm managers seeking temporary employees depend upon the
[868] Papago labor pool. More significant for the Papagos is the opportunity they thus gain for training in all types of farm work, including the operation of farm
[177] machinery. Potential benefits, in fact, carry beyond the limits of farm work since the nature of the employment (as contrasted with seasonal work under a crew leader) involves direct and intimate experience with an Anglo employer and all the
463 complexities of wage work employment. The Papagos are obviously well started in

Introduction

000 [23] [24] Time is catching up with the Papago Indians. In 1700 they didn't have domestic animals (save the dog), any plants domesticated in the Old World, any knowledge of the wheel, and looked and acted very much like naked savages. They started catching up with the Europeans who intruded into their desert domain then, and have progressed through crisis after crisis successfully. But after 250 years gaining, it looks as though they may be slipping back in their race against us.

These dark-skinned natives live in a region where the human picture is repainted in lighter hues every year. Thousands of white-skinned Anglos move to the Southwest from other parts of the country seeking health, retirement, relaxation, or work. Once a Southwesterner was very different from people in the rest of the U. S.– now he is usually just someone from somewhere else.

177 648 [491] As the region fills up with Anglos who are very much alike, the people who were here before are profoundly affected. For many decades Spanish-Americans and Indians were too isolated to be much changed by a growing flood of Anglo immigration. But better roads made them accessible to tourists seeking strange sights, and drew for them a distorted picture of Anglo society and ways. Distorted as it was, it helped balance the strange picture sketched by the U. S. Indian Bureau's handful of employees who were almost the only Anglos Indians saw for decades.

177 648 [161] [464] During the decade before 1950 the population of the Southwest leaped about 50 per cent. Now most Indians are no longer isolated. They have numerous white neighbors even in rural areas--except on some very large reservations. From many small reserves Indians commute to work in large Anglo cities. Southwestern natives are in much closer contact with large numbers of Anglos than ever before. They are exposed to more Anglo culture, and can learn and are learning more about it and adopting more of it. Indians in the region are changing rapidly in thoughts and action.

[464] Southwestern Indians also have behind them now nearly two decades of wide-spread experience at wage labor. First emergency work relief programs in the 1930's recruited them. Then many young men and women served in the armed forces, and defense industries pulled reservation dwellers away from their homes into the war-time manpower vaccuum.

> "With the advent of war. Papago were drafted, and both men and women began to leave the Reservation in large numbers to work in the cotton fields, ranches, mines, railroads, and airplane factories. The effect of this new work pattern will be far-reaching."*

177 464 648 A few years working along side Anglos in their own surroundings for equal wages taught formerly unsophisticated Indians more about Anglos and their culture than

---

*Joseph, Spicer, and Chesky, 1949, p. 27.

177 464 648 decades of tutelage by the Indian Bureau and tourists. And more Indians were affected than ever before--a quarter of the hitherto ultra-isolated Navahos; all the men in some Pueblos in New Mexico. Defense workers and servicemen learned new standards of living and new modes of behavior.

161 [433] At the war's end they returned to inadequate reservation lands. For Indian population in the Southwest had leaped far beyond the human carrying capacity of the reserves--small remnants of original Indian territory held in trust for them by the government. While many smaller tribes stabilized at their size of 50 years ago, larger groups are rapidly increasing even though Anglo immigration submerged the total Indian minority ever deeper.

311 433 177 221 [464] At the same time the Southwestern Indian land base deteriorated in quality so it could support fewer people, because of overgrazing, erosion, and other causes.

> "Faced by these increasing difficulties, many
> Papago families began regularly to migrate off the
> reservation to pick cotton and engage in other seasonal
> wage work during the winter months, while
> they retained permanent homes in their 'fields' villages
> where they spent the remainder of the year
> farming and herding. In time a new dual residence
> and economy pattern developed among the Papago.
> [182] By reinforcing the rhythmic balance of traditional
> culture and personality structures the new
> pattern apparently met, to a certain extent, both
> immediate economic needs . . . and deep-rooted
> socio-psychological needs for security and opportunity
> for constructive development."*

**Thompson, 1951, p. 71.*

WHO--this report is about--Papago Indians

101 This report is concerned specifically with the
[121] role in the southern Arizona cotton harvest of over
7,000 Papago Indians who live along the Mexican border.
(197) These natives speak a Piman language closely
related to others spoken from the Gila River south
to the border of Sinaloa in Mexico. They call themselves the Tohono Au'autam, The Desert People.

101 A few hundred Desert People live on the Mexican side of the border.
361 Some inhabit Indian rancherias--villages with houses scattered barely within sight of
131 each other--close to the frontier, and have contacts
with American Papagos. Others eke out a parasitic
existence around towns of Mexicans who have taken their
[185] lands. They are said to have given up their Indian
heritage and are waiting passively to die.

101 The thousands of Desert People in the U. S. are
[186] a people with hope and pride in being Indian. A few
hundred make a living in low paid jobs in Anglo
[464] cities. They have chosen to break away from their
Indian heritage in an endeavor to give their children
[177] a head start as citizens of wider Anglo-American society,
[871] especially by affording them a formal education in public schools.

657 Most of the Desert People, however, live in
rural semi-desert areas reserved for them by the U. S.
423 from their former territories. The San Xavier
131 community was reserved some of its lands in 1874 by
Presidential Executive Order. This 71,090 acre
reserve slices through the Santa Cruz River bottoms,
and could once be irrigated with surface flow (until
Anglos started erosion that cut the channel--and the
[312] water table--20 feet below surface) and now is irrigated
from wells. Most of it was allotted to individuals,
and the useable agricultural and range land
[311] is now mostly in heirship status. That is to say its
use is amazingly and cripplingly complicated by the
[428] fractionalization of holdings through inheritance.
Fortunately, the San Xavier community continues to
recognize old use-rights more than the legal allotment system.

464 36 166 178 179 [221] The movement of the Desert People to permanent homes in labor camps on European owned farms, abandoning their roots on the tribal lands is a relatively new development. While Papagos have worked for Europeans for almost the entire period of contact, their work has always been brief in duration, a supplemental measure followed by a withdrawal to the homeland. Forsaking overcrowded tribal lands for good seems to have begun only within the last decade, and to have reached significant proportions only in the last 5 years. (Some Papagos have worked for many years as domestics or miners away from the reserves) This late beginning for a class of Papagos severed from their homeland is due to the peaceful nature of contacts between Papagos and Americans and to lack of opportunity for wide-scale farm employment until [722] [648] [161] recent years. The Papago economic base was never destroyed by warfare with the incoming whites as in the case of the Navahos and many other tribes. Overpopulation on deteriorating reserves did not reach a critical point until about the same time extensive development of irrigated agricultural lands in nearby valleys began, offering a safety valve to those Papagos able to speak acceptable English and perform semiskilled farm work.

464 166 171 This class of Papago farm laborers is very new compared to natives living on South African farms. Most of them have grown up on European farms, without any stake in native reserve areas. Some are descended from natives forced into farm labor by destruction of their cattle in wars nearly a century ago.[1]

The ties native South African farm workers retain with natives living in the reserves naturally depend on the time they have spent on the farms. Some entirely lack relatives or friends on reserves, and have [602] [592] [574] [186] never visited the reserves.[2] A very few Papago year-round farm laborers no longer have relatives on the reservations. But they all still have friends on the trust lands. They all were born on the reserves. They all still visit their old homes, even if only rarely. They are all very conscious that they are Desert People, and are only beginning to view themselves as people apart.

---

[1] Hunter, 1937, p. 389.

[2] Ibid., p. 390.

594
171 This Papago family including parents and sometimes another adult, with 2 or 3 children is a comparatively smaller unit than native families living on European owned South African farms, for example. There Dutch and English settlers also moved into native held lands, and a class of permanent native farm laborers has grown up. Their average household includes slightly more than 3 adults, and 5 children.[1] This is about the size
596 of the Papago extended family living as a household
592 on the reserves. "Most often, and ideally, a household consists of the old parents, unmarried sons and daughters, and married sons with their wives and children--three generations in all."[2] It reflects the fact that living on European operated farms is new to the Desert People, a move accomplished by biological family units in the younger age groups.
[178] Only recently as younger Papagos have gone to school and learned white ways have they begun to set up separate households away from their parents.

594
162 Families with school-age children are the largest in the labor camps. The average family size for families with school-age offspring only is over 6½.[3] The families with both school and pre-school children averaged over 7 individuals.[4] This probably reflects
[165] the high mortality rate of smaller children among the Desert People, whose new-born babies have a life expectancy of only 17 years.[5]

Families with younger parents and all pre-school age children are, of course, smaller, running some 4 individuals, with nearly 2 children per family.[6]

221
596
178 Migration to the cotton fields reinforces the tendency to break up the old Papago extended family into smaller units like our biological family households. This change is most complete among families living in labor camps all the time, having severed their reservation ties more or less completely.

---

[1] Hunter, 1937, p. 391.
[2] Joseph, Spicer & Chesky, 1949, p. 45.
[3] 10 families interviewed with 19 school children, 66.
[4] 8 families with 10 school children, 1.25 average, and 14 pre-school, 1.75 average, had 57 persons, 7.125 average, plus.
[6] 8 families with 15 children under 6 had 32 plus people.
[5] Secretary of the Interior, 1949, p. 12.

622
621
571
626
[596]

Again the key to the puzzle lies in lack of social sanctions in the Papago group in the camp. The Desert People come from several hamlets on their reserves to any camp, usually. There is no community leader nor community sanctions to motivate them. The "chief" turns out to be merely the patriarch leading one large extended family. Among this group of his own kin, he receives considerable respect, but carries less authority than many Anglo patriarchs. Among unrelated families, even those from his own village, he has none. This camp operators do not realize, having assumed that a Papago patriarch conforms to their concept of an Indian chief. (This mistake has been made repeatedly in U. S. history by Anglos who insisted upon projecting the concept of "chief" derived from Anglo-Saxon protohistory into American Indian society where it was not and is not true.)

621
626
571

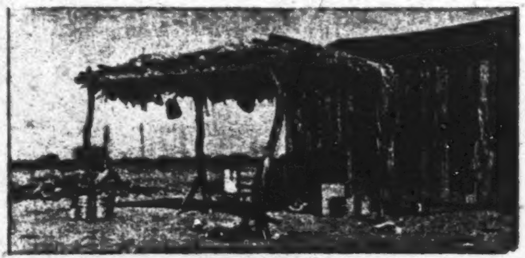
The heterogeneous group of Papagos in a camp no more ecnstitute a socially integrated group with recognized and effective social sanctions than the racially heterogeneous residents of a miscellaneous camp. While they do not like being talked about by other Desert People, they do not act to forestall such talk as they would to keep their relatives and neighbors at home from talking. So camp grounds accumulate trash.

153
177

In labor camps the Desert People are also away from home in mental attitude as much as in physical being. They feel themselves in a white man's world, where they should act as white men--and they see an example of uncleanly whites in labor camps as a pattern. They cannot act better than they are taught. They cannot act according to standards in the minds of cotton growers or city newspaper reporters which are invisible--they can learn only what they can copy from sight. This fact explains why what social scientists call "acculturation" (adjustment of people of one culture to habits of another) takes place when people meet face to face. An example from history illustrates clearly. The Papago word for "cat" is copied from the old Spanish cat call rather than the Spanish name-word because the Indians saw and heard Spaniards calling their cats, and could associate call and animal. They could not learn the Spanish name for cats, which was invisible and silent in the minds of the Spaniards.

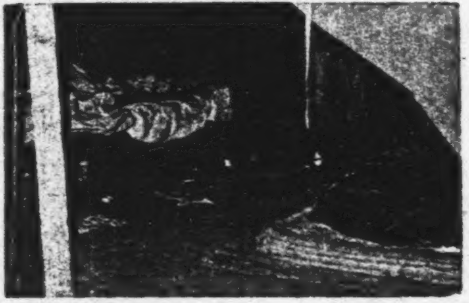
[Housing in Southern Arizona Labor Camps]

362
[415]



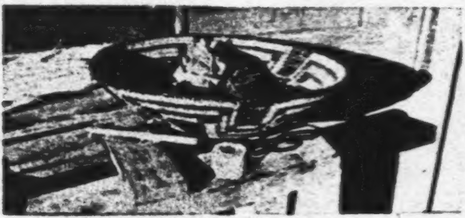
A ramada made living more bearable . . .

The Desert People have learned to lock their cabins while they work.



Most Papagos slept on cots . . . some on the ground.

[285]
[177]



Usually camp furnishings were Anglo materials . . . scissors and thread, a comb . . . but some Papago material culture persisted . . . corn, and a willow and devil's claw basket.

[Arizona Labor Camps]

164 At the end of the 1950 season when harvesters were gleaning the last bits of fiber from the fields, spinal meningitis killed a baby and his 4-year old sister and hospitalized 6 other residents of a labor camp in the Stanfield area. State Health Department officials charged filthy conditions in the camp were responsible,[1] and treated 50 camp inhabitants with sulfa drugs after posting officers to quarantine the camp.[2]

These are conditions threatening permanent residents of the cotton growing counties, and Papago and other migrant workers who live in labor camps. This is why a reservation town like Santa Rosa can be virtually prostrated by influenza at the end of the picking season when the Desert People return to their reserves.

752 Some ills Papagos fall heir to in camps are more or
less special cases, like the woman whose foot was run o-
ver by a car in Magdalena. Once in a while some one is
164 bitten by a spider. The Desert People are susceptible to
842 colds and pregnancy, as one farmer put it. But one ser-
ious problem they share with many Southwestern Indians
853 is a tendency to feed infants an unsuitable diet. In one
165 labor camp 2 Papago babies died during the summer of 1950
from stomach disorders apparently resulting from eating
green fruits in excess and other unsuited foods.

75 The health problem of the Desert People is compounded
by their reluctance to submit to European medical treat-
177 ment. Papago attitudes toward European medicine vary a
great deal, from educated individuals who rely on it to conservative families who have nothing to do with it. These most Papago of Papagos baffle farmers who trust in Western medicine implicitly and cannot fathom Papago reasons for not accepting it. One grower, himself of a minority group, could not understand how Papagos could "just lay there and die." But they can, and do, because they know nothing else. Their trust is in native medical practicioners. They do not turn to Western doctors because there have not been enough provided by the Indian Bureau to care for them, and the Papago medical staff has not effectively "sold" itself to the Desert People. All their training has taught the Desert People a system of disease and curing concepts totally different from those of the European doctor's.

---

[1] Arizona Daily Star, Feb. 6, 1951.
[2] Tucson Daily Citizen, Feb. 6, 1951.

[Arizona Labor Camps]

517 Of necessity, much
52 more reliance is placed by harvest hands on forms of amusement requiring a minimum of equipment and space: drinking, crap shooting, card playing, sexual indulgence.

797 527 [563] Cotton pickers hauled from towns each day of course had recreational resources of those population centers at their disposal. They could attend church on Sunday. Farmers make little effort to provide access to churches for their employees in labor camps. For some cotton pickers racial discrimination is a problem. As one Negro woman at Marana said, "There's a church over there, all right. But we don't know if they take colored. We don't go." For Catholic Papagos as Catholic Mexican-Americans, this is no problem. But farmers don't provide Sunday transportation to trading towns. The Desert People stay in labor camps on the Sabbath, except for a few from San Xavier who can take a bus home for the day occasionally.

527 About half the Papago women in the camps do some washing on Sunday.[1] An occasional individual picks some cotton, but most simply loaf around camp with nothing constructive to occupy them. [778] Sonora Catholics make their household shrines in a corner of their cabins, and use them. 527 346 In labor camps where all residents are Papagos, or where there are many of the Desert People in a large camp, they take over an empty cabin to furnish a chapel where they can hold their services.[2] One far-sighted farmer who understood his Papago employees built a fine chapel for them when he constructed a new concrete block camp, but such understanding is indeed rare. Labor camp chapels seem to serve a quarter of the Papago harvest hands.[3]

---

[1] Based on information from 8 families.

[2] 527 797 795 346 ● [77] "Sonora Catholicism antedates other Christian faiths on the Reservation today, for the belief and practice of Sonora Catholics are remnants of the teachings of the early Spanish missionaries, acquired either directly from the padres, or through other Indians or Mexicans. During the generations when no Catholic clergy came to Papagueria and the nearest priests were far away in Mexico, the faithful carried on as best they could the ceremonies and devotions of the church.

[178] [979] "With the absence of priests and the passage of time, much of the Roman creed and ritual vanished. In the Sonora Catholic churches, for example, there are no Mass, no hymns and prayers in Latin, no confession, and no marriage ceremony. Children are baptised by godparents, and the people bury their own dead." Joseph, Spicer and Chesky, 1949, p. 81-82.

[3] Based on information from 8 families.

WHY the Desert People work

461 464 The Desert People pick cotton because they need the money they are paid for their labor. Cotton harvesting is hard work and dirty, but as one young Papago who picks 300 pounds a day told the author, "$9 a day is a lot of money to me!" Picking cotton is the most practical way for unskilled Papagos to earn any large sum, and Papago cotton pickers superficially come very close to the concept of the economic man governed only by "laws" of economics. But there are deep-lying cultural reasons for this attitude and need among the Desert People.

CHANGE IN VIEWPOINT

● 179 178 Originally the Papago people lived in a manner quite different than they do today. After unknown centuries in their harsh semi-desert environment, they had worked out a marvelous adjustment to unfriendly nature and a military balance with surrounding Indians. But the Desert People have had some contacts with Europeans for 250 years. During those two and a half centuries, more and more Papago behaviors have changed to approximate European behaviors. Forms, if not meanings, of Papago action are frequently much like our own. Of course, habits and thoughts most central to Papago culture remain Indian in character. The most complete and striking changes have probably occurred in the economic spheres of life.

174 431 437 [224] Once material goods apparently changed hands among the Desert People through a system of gift exchange. A successful hunter divided his kill among families in his village. Later the wife of a good farmer divided some of her tasty dishes so the hunter received an amount roughly equivalent to his meat. Each family was an economic unit if necessary, and no kindred looked beyond its numbers for aid.

175 797 179 [231] [241] [465] When Spanish missionaries reached the Desert People they set out to change the Indians spiritually and economically. They introduced new crops and domestic animals to the Papagos along with a new religion. Missionaries introduced the Desert People to a work-exchange system, in which Indians were paid in kind for harvesting and other work (and even for attending mass at first)

175
177 at the missions. Familiarity with the work-exchange
797 idea prepared Papagos for the system of barter prevalent
in the rural areas on the frontiers of New Spain.
[465] At least by the time New Spain won its independence and
called itself Mexico the Desert People had begun to
work and trade for money. But their homeland economy
[439] was still on a barter basis, and did not go onto a cash
basis until after many years of control by Anglo-Americans.

177 Anglos established the first stores the Desert
People had seen, and brought a much wider selection of
439 foods and goods to be purchased with cash. Anglos were
464 in the habit of paying for labor in cash rather than
kind. As the Indians began to want the new foods and
465 goods their own economy collapsed. Always the Desert
People had survived on a very narrow margin in their
resource-poor environment. But they always got by. Now
as they acquired tastes for new foods and desires for
new goods, their resources could not supply the surplus
needed to purchase them. The Papagos had to convert
their only unexploited resource—their own labor—into
the cash they needed to buy new necessities. Their economy
changed from a food-gathering-agricultural-hunting-work
exchange subsistence economy to a wage labor-agricultural
cash economy.

46 The role Papago women have played in these changes
cannot be overemphasized. They found it far easier to
177 prepare and cook foods from trading posts than to gather
439 the desert foods, prepare and cook them. Half the food
eaten on the reserves now is purchased.[1] Many articles
of Anglo technology—irons, sewing machines, flour, etc.
—made women's work easier, and Papago women adopted
them. This has meant Papago men and frequently women
too had to work for cash to pay for purchased foods and
sewing machines and cloth and durable goods.

461 This need for cash is recognized by the realistic
464 Desert People and moves them to hire out for wage labor.
They have wants which they feel strongly. They realize
their wants can be satisfied only with cash, and they
have found cash can be acquired in most cases only by
marketing their labor, since it is the major Papago resource.
Their other resources simply cannot produce the
cash necessary to satisfy their wants.

---

[1] Joseph, Spicer and Chesky, 1949, p. 37.

466 reliable but they're more trouble--you have to take
484 them to town, to the store, and you have to look after
them more than the others."

● 177 The Desert People working in the cotton harvest
meet farmers and other laborers under very special
571 conditions in labor camps and fields. But for a few
432 hours in the week they come into contact with a much
wider range of Anglo-American culture in trading cen-
439 ters where they shop. They enter into the buyer-seller
relationship prevalent in our society, in stores of
273 many kinds. They go to movies. They sit by trucks that haul them to town and watch the colorful harvest season crowds. They seek sympathetic or predatory men to buy liquor for them, since legally they cannot purchase it themselves. Then, they drink it as fast as possible so they won't loose the poor quality liquor they've been overcharged for if they're arrested. As a result they generally become staggering drunk and are arrested, contributing both cash and labor to the city governments of trading towns--and giving their tribe a black eye. Their few hours in town on Saturday afternoon make a deep impression upon the observant Desert People.

484 In Pima county, large-city Tucson is shopping day
439 goal for Papagos. They take a bus into the city about
once a month.[1] These are the shopping trips remembered
[494] by the Desert People, for in talking about their shop-
ping, they didn't bother to mention more frequent trips to stores in Sahuarita or Marana where the center of town is no more than a general store or two and a garage.

In Pinal county the Desert People usually shop in the trading center nearest the labor camp where they live. The main shopping towns are Casa Grande, Eloy, Picacho, and Stanfield and Maricopa. The first three are towns of about 4,000 inhabitants. The others are "wide places in the road." To some extent Papagos go there, or to country stores at Friendly Corners, El Centro, etc., most of the time, looking forward to a trip to one of the towns every couple of weeks or once a month. The Indians go to one of the business centers Saturday afternoon, usually for 3 hours or more.[2]

---

[1] 5 individuals giving information averaged 25.8 days between shopping days in Tucson.

[2] 18 Papagos giving information went to town every 7.4 days on the average.

550 effective for adults if they learned individually, since one strong reason for lack of faster progress in learning English is a fear of being laughed at for making mistakes.

The Papago Council can assist the reduced number of unskilled Desert People who will be able to harvest cotton before frost kills leaves enough for picking machines to work efficiently. The Council might authorize the Papago Loan Board to grant loans to capable, responsible young Indians to purchase buses to haul Papagos to the fields from a town base, like the young man at San Xavier already mentioned. Indian contractors would necessarily have to weed out their crews to include the swiftest pickers who harvest clean, high-grading cotton preferred by growers. They would need to know the cotton growing areas intimately so they could move their crews where jobs were available. The Loan Board might well exercise some regulation over the housing these Indian contractors financed by the Tribe furnished their crews.

464
466 The fact the Desert People live relatively near the Pima and Pinal county cotton fields will continue to operate to their advantage in a highly competitive labor market. Cotton farmers don't have to send to Texas or Oklahoma to hire them, and their transportation costs are only a fraction of those of most migrant workers. Their strong beliefs in St. Francis leading to prolonged absences from the fields, during the pre-frost hand picking seas; their lack of knowledge of English, and the stereotypes about Papago drinking habits some Papagos have caused most Anglos to hold will mitigate against the entire small hand picking force of the future being composed of the Desert People. But at this time, the Indians appear to occupy the most favorable position to obtain the small proportion of harvesting jobs which will remain in the cotton fields when the harvest reaches peak mechanization.

Papagos and Yaquis will also be preferred by many cotton growers for the picking jobs remaining after full mechanization because they are isolated from the general labor market. They can be imported and exported as
● [FM] needed, much like foreign contract laborers. And the cultural conditioning of Indians gives them quite different characteristics as laborers from Mexicans or

---

[1] Suggestions for school and adult education programs are made and discussed in Dobyns, et al, 1949, p. 65 ef.

464 466 ● 177 Negros who have absorbed more Anglo-American culture and are therefore less subservient.

SKILLED FARM WORKERS

464 The more skilled Papago farm laborers will be least affected by mechanization in the cotton fields. There is no foreseeable way of mechanising the process of irrigation in the immediate future (although it could be done!), so demand for Papago irrigators will continue. And they are good irrigators when experienced. As one cotton growers remarked only half-jokingly, "The Papagos are the only people I know who can make water run uphill!"

464 466 156 Another quality in the Desert People that makes them attractive to Anglo farmers is their psuedo-subservience. Employers say an Indian will never argue with you; he'll do a task your way, but if he doesn't like it he just leaves. Anglo farmers seem to prefer this kind of action to arguments and recriminations from workers of their own group, or Negros or Mexican-Americans. It arises from the deepest wells of Papago personality. [183] "In addition to belief in magical and supernatural forces, the main behavior requirements for smooth functioning of the Old Papago society were work, co-operation, [867] and avoidance of aggression."[1] These ideas drilled into the Papago child from infancy make the Papago adult a nearly ideal employee from the Anglo point of view.

464 466 [191] [273] Advantages of behavior the Desert People have in finding farm jobs in southern Arizona are somewhat offset by their relatively poor understanding and command of the English language, and the high incidence of drunkenness among the men. However, the most serious disadvantage the Desert People will labor under when cotton cultivation and harvesting reaches full mechanization will be lack of skills.

464 Of course, irrigators and general farm handy men who clean ditches, feed cattle or poultry, mend fences, and perform simple tasks on hay balers and other machines will still be hired. But their pay will be relatively low compared to tractor operators, especially machine picker drivers, and other skilled men. Papago farm workers have little opportunity to learn these skills, and mechanisation may sweep the cotton fields leaving them all performing lowlier tasks.

---

[1] Joseph, Spicer and Chesky, 1949, p. 211.

757 177 This lack of knowledge[2] is their heritage from the past, when American Indians developed their own methods of medical treatment quite independently of Europeans. It is their heritage from the past when Europeans expected--and still expect--Indians to accept European treatments which are very different from their own without being offered sufficient explanation. [192] The Desert People simply do not know many of our European medical concepts--there are not words in the Papago language for many of our common medical terms. So the Desert People can't even think about them, much less understand them.

000 This briefly states the basic situation which makes it quite certain that real improvement in Papago health not only among farm workers but throughout the whole tribal population awaits an intensive and effective health education program. Techniques for such education are known. The health of the Desert People will improve as those techniques are used.

Health education of school children could of course ultimately solve the difficulty. But ultimately may be a very long time, considering the proportion of Papago children attending school, their attendance records, and the number of years they don't go to school.

An intelligently managed program of sub-professional medical training could pay off in lives and better general health much sooner--soon enough to help the Desert People living in labor camps. It would require nothing more than brief training of medicine men in basic hygenic concepts and practices to effect great improvement.[1]

If medicine men could be taught recognition and treatment of a few basic ills by Indian Bureau doctors, chances are good the better feeling engendered could be used to persuade them to refer to white doctors cases they recognize as beyond their capabilities. The net effect could hardly escape being good, for any measure which gives the Desert People more knowledge of our concepts of disease and its treatment is a step toward better health for them. As long as their primary health problem is lack of knowledge, native medical practitioners are the natural and most efficient avenue for sending them additional knowledge and safety.

---

[1] Arguments for such a program and estimates of its effect are presented in Dobyns, et al, 1949, p. 44-48.

[2] [i.e. as how to protect their health--Analyst]

Papago NU28

241 Grain.—The roving Papagos, those living off the reservation, raise only grain enough, principally wheat and corn, for their own use. Squashes, melons, and sugar cane make up the list of their common crops. Cultivation with them consists in scratching the ground with their stick plows and planting the seed. They pay no attention whatever to weeds. They inclose small fields of fertile ground in the mesas with brush fences and then plant after a rain at the right season. If it rains in November, they plant wheat. Rain in December will insure a good growth of straw, but rain in February will be necessary to mature the berry. The failure of rain in any of the 3 months will prevent planting or about ruin the crop which has been started. Owing to the uncertainty of propitious rains they obtain crops, apart from irrigation, only about once in 6 years.

Their wheat is white, a short, plump berry, of remarkably good quality. In the off years they resort to the reservation, raise a little grain, and "pack" it to their villages. Corn, squashes, sugar cane, and melons are raised after the summer rains.

252 412 They grind grain on an inclined stone, called a metáte, using a smaller stone, about the size of a brick, called a mano, as the crushing power. A handful of whole grain is placed at the top of the metáte, a part of it is scattered over the surface of the stone with a dexterous flirt of the hand, and it is then powdered by two or three energetic rubs with the small stone. The whole process resembles that of washing clothes with a washboard. The flour is caught in a bowl as it falls from the metáte, is clean and free from grit, and contains all the nutriment of the grain.

272 252 [234] Parched wheat, when ground in this manner, is mixed with water, forming a palatable drink, called penole. Corn is never ground raw, but after it has been boiled, and the meal is pressed and rolled up in soft corn husks and forms their bread for journeys. It is superior in taste, in my judgment, to any kind of corn bread made by the whites. They manufacture a kind of cheese from milk, but have no process for butter making.

231 Stock.—The Papagos have small herds of stock and droves of horses. These constitute their substance, but such possessions can not be large in view of the uncertainty of water. Nearly every family has a few fowls. Their wants are few, and those are easily satisfied. They are self-supporting, and no charge on the government for either food or clothing.

493 An occasional farm wagon was found in a village, but in Ki-ki-wah there were 4. This village is about 90 miles from Tucson and 10 from the Mexican line.

224 [439] Game.—Various species of deer abound, and in season the markets of the whites are supplied with venison by the Indians. Mountain sheep and goats are also brought in by them, but in less numbers than deer. Black and cinnamon bears are occasionally killed. The cotton-tail rabbit abounds, and is in demand for the table. The flesh is white, and fully equal to chicken in delicacy of flavor. Dangerous wild animals are also killed by the Indians in considerable numbers. The most formidable of these is the mountain lion. This animal destroys young stock, and is therefore hunted with zeal by the Papagos. The pelts possess a trifling value. The wildcat and civet cat are very numerous. The coyote, fox, jack rabbit, and skunk make up a group of animals which are pests, though not dangerous ones. The jack rabbit is sometimes used for food.

223 Birds.—Among the birds useful to Indians are the quail, dove, mocking bird, and cardinal bird. These are trapped with great success by them, the quail and dove for food, the others for household pets, their sale forming quite an income. Hawks, owls, and crows abound. Wild ducks, geese, bittern, heron, and snipe are killed in their migration back and forth between Mexico and California. It will be seen that the Indians have many food resources on wing and foot, valuable for consumption or sale.

342 333 Dwellings.—No tents are used among the Papagos, and about two-thirds of the houses are made of adobe, the rest being constructed of mud and brush. They consist of but one room, and have dirt roofs laid on rafters of small trees. There is no uniformity as to the size of the houses. The adobe bricks are made in an open frame of four compartments from a gray mud or clay mixed with short cut straw or hay. This mold is placed upon the ground, filled with the soft adobe, packed firmly, and then the frame or mold is removed and the brick left to dry. The usual size of a brick is 4 by 9 by 18 inches.

[356] The Papagos are cleanly in their habits. They sweep the dirt floors of their houses, and in some cases the ground around them. No vermin of any kind was found in any of their houses.

291 [177] Clothing.—The men wear boots or shoes, pants and shirts, and straw or felt hats. A canvas jacket is worn on cool days or on a journey. The women wear shoes, stockings, and skirt. and waist blankets are quite common with both sexes, with the women serving as shawl and head covering. The women sew nicely by hand, using thimbles. They also use sewing machines, of which there were three in Ki-ki-wah.

181 [548] Morals.—The men were generally represented to me to be truthful and honest and the women to be virtuous. Prostitution is said to be unknown among them. This may be due to the fact, as some claim, that wives are taken and abandoned at will. Occasionally a man was found with 2 wives.

[595] Their honesty was tested in various ways on our trip. The outfit of 2 wagons was left unguarded for a whole day when we made the trip from Tecolote to Fresnal and neighboring villages, and not a thing was disturbed. Twice after we left villages forgotten articles were brought to us by men on horseback. These articles would not have been missed, and might have been kept by them with perfect impunity. The Papagos are not addicted to

000